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SMD Power Inductor Series

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SMD Power Inductor Series

Application Notes

Application Notes

Selecting the Optimum Inductor Technology to Best Match the Performance Requirements

How to Select the Right Inductor for DC-DC Converter

1. Current Rating

Current through a DC-DC converter inductor is always changing throughout the switching cycle and may change from cycle to cycle depending on converter operation, including temporary transients or spikes due to abrupt load or line changes. This peak-to-average ratio makes specification of current ratio difficult. If one takes the highest possible instantaneous peak current as "current rating" for an inductor, the inductor is likely to be spoiled for the application. If one takes the average current as "current rating", the inductor may not perform well when passing the peak current. The way to solve this problem is to look for an inductor that has two current rating factors.

- The first factor is Isat which to deal with possible core saturation from the peak current.
- The second factor is Irms which to deal with possible heating that can occur due to the average current.

2. L (Inductance)

In most design procedures, inductance is the first and main parameter to be calculated the desired circuit function. Inductance is calculated to reduce output current ripple and to provide a certain minimum amount of energy storage (or volt-microsecond capacity). Using much greater or much less inductance may force the converter to change between continuous and discontinuous modes of operation. Using less than the calculated inductance causes increased AC ripple on the DC output. Most DC-DC converter applications do not require extremely tight tolerance of inductance which ±20% is suitable for most converter applications.

3. DCR (DC Resistance)

DCR is simply a measure of the characteristic wire used in the inductor and is based strictly on the wire diameter and length. Normally this is specified as a “max” in the catalog but can also be specified as a nominal with a tolerance. Typically to reduce the DCR means having to use larger wire and probably a larger overall size. So optimizing the DCR selection means a trade-off of power efficiency, component size and allowable voltage drop across the component.

4. SRF (Self Resonant Frequency)

The frequency at which the winding self-capacitance resonates with the inductance. For most converters, it is best to operate the inductors at frequencies well below the SRF. This is usually shown in the inductor data as a "typical" value.

5. Isat (Saturation Current)
The amount of current flowing through an inductor that causes the inductance to drop due to core saturation.

6. Irms (RMS Current)
In physical meaning, the RMS (Root-Mean-Square) is often called the effective value or DC-equivalent value of a current is an equivalent of a DC current, which has the same heat dissipation as the real current on any resistor. Irms is the amount of continuous current flowing through an inductor that causes the maximum allowable temperature rise. In this case the data sheets almost always provide a rating based on application of DC or low frequency AC current.

Conclusion

It can be seen that inductors for dc-dc converters can be described by a small number of parameters. However each rating may be thought of as a "5th element" based on one set of operating conditions which may need to be augmented to completely describe expected performance in application conditions.

(TPSDBL) Backlight High Voltage Inductors

Product Introduction

Token SMD high voltage inductors with high breakdown voltage for back light applications

Features :

- Magnetically shielded.
- Flat top for pick and place assembly.
- Ultra miniature size for high density mounting.
- Designed with heat resistant materials for reflow operation.

Applications :

- PDA, USB, LCD, and TFT.
- Power supply for VCRS; OA equipment Digital camera.
- LCD television set, notebook PC, portable communication Equipments.

Token (TPSDBL) low profile series is specified for backlight applications, such as PDA, USB, LCD, and TFT.

Magnetically Shielded Construction to avoid radiation, Token (TPSDBL) features high breakdown voltage, and very low direct current resistance (DCR). The height only 2.92 mm, they have a footprint of (6.6 x 4.45 mm).

The (TPSDBL) is constructed of high temperature materials that provide excellent heat deflection to prevent damage during solder reflow. Standard inductance values range from 1.00 µH to 10000.00 µH, DCR from 0.04Ω to 32.8Ω, current rating from 0.02A to 3.0A, and custom values are available on request to meet specific requirements.

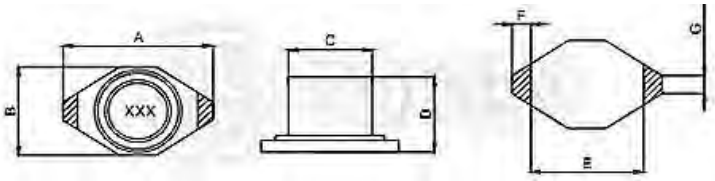
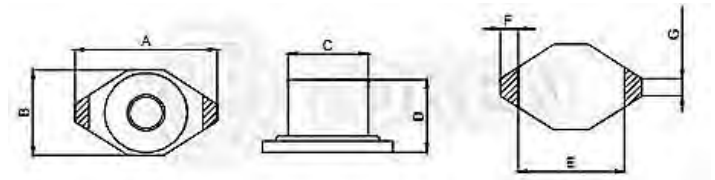
Token backlight inductors are composited with excellent heat resistant materials and flat top designed for easy pick and place assembly for reflow operation. Ultra miniature size is suitabe for high density mounting.

The (TPSDBL) series are RoHS compliant with Pb-free terminations. Token will also produce devices outside these specifications to meet specific customer requirements,Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPSDBL1608C/1608DT)

Type	A Max.	B Max.	C Max.	D Max.	E Ref.	F Ref.	G Ref.
TPSDBL1608C	6.6	4.45	4.90	2.92	4.32	1.02	1.27
TPSDBL1608DT	6.6	4.45	4.90	2.92	4.32	1.02	1.27

TPSDBL1608C		
TPSDBL1608DT		

- Note: Design as Customer's Requested Specifications.

TPSDBL

Electrical Characteristics (TPSDBL-1608C/1608DT)

Inductance (µH)		TPSDBL1608C		TPSDBL1608DT	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
1R0	1.0	0.040	3.00	0.065	2.0
1R5	1.5	0.045	2.80	0.070	1.9
2R2	2.2	0.050	1.80	0.075	1.5
3R3	3.3	0.055	1.60	0.080	1.2
4R7	4.7	0.066	1.40	0.085	1.2
6R8	6.8	0.065	1.20	0.090	1.0
100	10	0.075	1.00	0.125	0.7
150	15	0.090	0.80	0.135	0.6
220	22	0.11	0.70	0.160	0.5
330	33	0.19	0.60	0.275	0.45
470	47	0.23	0.50	0.300	0.34
680	68	0.29	0.40	0.575	0.29
101	100	0.48	0.30	1.100	0.24
151	150	0.59	0.26	1.400	0.20
221	220	0.77	0.22	2.500	0.17
331	330	1.40	0.20	2.900	0.16
471	470	1.80	0.19	3.600	0.14
681	680	2.20	0.18	4.550	0.12
102	1000	3.40	0.15	8.100	0.08
152	1500	4.20	0.12		
222	2200	8.50	0.10		
332	3300	11.00	0.08		
472	4700	13.90	0.06		
682	6800	25.00	0.04		
103	10000	32.80	0.02		

Note:

- **Measuring Frequency. L:<100µH (100KHz/0.25v) L: >100µH Above(1KHz/0.25v) .**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt=40°C (ta=20°C).**

Order Codes

Order Codes (TPSDBL)

TPSDBL1608C	-	1R0	M

Part Number
TPSDBL1608C
TPSDBL1608DT

Inductance	
1R0	1.00μH
150	15.00μH
101	100.00μH
102	1000.00μH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%
N	30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSDC) Low Profile Low DCR Power Inductors

Product Introduction

Token (TPSDC) Shielded Small Footprint SMD Power Inductors Deliver Higher Inductances.

To meet the electrical demands of next-generation products such as microprocessors, high-current dc/dc converters and telecom equipment, the (TPSDC) SMD Inductors from Token Electronic targets applications that require wide range inductance, lower DCR and high current.

Token TPSDC series of shielded, surface-mount wire-wound inductors features a profile ranging from 2.92 mm, 5.08 mm, to 7.62 mm, and is suited for use in low-profile DC-DC converters and switch-mode power supplies used in power telecommunications systems, industrial controls, and medical instrumentation.

All parts are magnetically shielded to avoid electromagnetic interference with surrounding circuitry. Electrical parameters include an inductance of 1.0 µH to 10000.00 µH, resistance of 0.021 ohms to 32.800 ohms, and a rated current of 0.02A to 8.00A. The inductors also operate from -40°C to +85°C.

The power shielded inductors are wound around a ferrite core and are particularly suitable for cost-critical mass applications and the surface-mounting capability. The TPSDC series conform to the RoHS directive and Lead-free. Custom parts are available on request for tighter tolerances. Application of shielded inductors specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

TPSDC Quick Selection

Surface Mount Inductor Quick Selection (TPSDC)

Characteristics :

- Saturation Rated Current (IDC): The DC current when the inductance becomes 10% lower than its initial value. (Ta = 25°C).
- Temperature Rise Current (I rms): The actual current when temperature of coil becomes Δ40°C. (Ta = 25°C).
- Operating temperature range: -40°C ~ +85°C.

Features :

- TPS1608DC is specified to achieve longer battery life significantly in handheld communication devices.
- TPS3316DC and TPS5022DC designed for the higher current requirements of portable computers.
- TPS3316DC and TPS5022DC used LCP plastic base.
- TPS1608DC used ceramic base with gold-plating.
- Magnetically shielded against radiation.
- Compact Size and Thin.

Test Equipment :

- Inductance (L): HP4284A LCR meter.
- Direct Current Resistance (DCR): Milli-ohm meter.
- Electrical specifications at 25°C.

Applications :

- Notebook, Personal Computers, Cellular Phone.
- Other Various Electronic Appliances.
- DC-DC converter, PDA.

TPSDC Quick Reference :

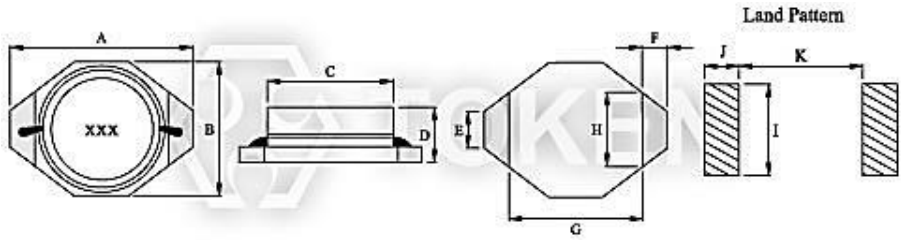
- TPS1608DC 1.0μH ~ 10000μH; 3.0A ~ 0.02A.
- TPS3316DC 1.0μH ~ 1000 μH; 5.0A ~ 0.17A.
- TPS5022DC 10 μH ~ 1000 μH; 3.9A ~ 0.53A.
- Test equipment: L: HP4284A LCR meter; DCR: Milli-ohm meter.
- Electrical specifications at 25°C.

Dimensions

Dimensions & Configurations (TPS1608DC)

Type	A Max.	B Max.	C ± 0.3	D Max.	E ± 0.3	F ± 0.3	G ± 0.3	H ± 0.3	I	J	K
TPS1608DC	6.60	4.45	4.00	2.92	1.27	1.02	4.32	2.50	3.56	1.40	4.06

SMD Wirewound Inductors - TPS1608DC

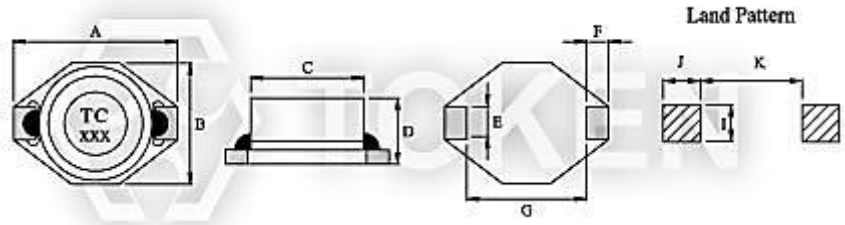


SMD Shielded Power Inductors (TPS1608DC) Dimensions

Dimensions & Configurations (TPS3316DC)

Type	A Max.	B Max.	C ± 0.3	D Max.	E ± 0.3	F ± 0.3	G ± 0.3	I	J	K
TPS3316DC	12.95	9.40	8.38	5.08	2.54	2.54	7.62	2.79	2.92	7.37

Wire-wound Inductors - TPS3316DC

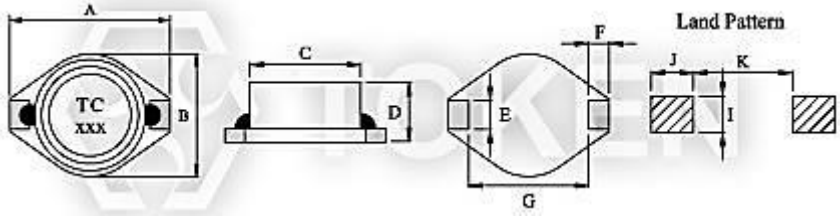


Shielded SMD Power Inductors (TPS3316DC) Dimensions

Dimensions & Configurations (TPS5022DC)

Type	A Max.	B Max.	C ± 0.3	D Max.	E ± 0.3	F ± 0.3	G ± 0.3	I	J	K
TPS5022DC	18.54	15.24	12.70	7.62	2.54	2.54	12.70	2.79	2.92	12.45

Shielded Wirewound Inductors - TPS5022DC



Shielded SMD Power Inductors (TPS5022DC) Dimensions

TPS1608DC

Electrical Characteristics (TPS1608DC)

Part Number	Inductance (µH)	Tolerance	Test Condition		DCR (Ω) Max.	SRF (MHz) Ref.	Q Min.	IDC (A) Max.
			L	Q				
TPS1608DC - 1R0M	1.00	M	100KHz, 0.1V	200KHz, 0.1V	0.040	250	30	3.00
TPS1608DC - 1R5M	1.50	M	100KHz, 0.1V	200KHz, 0.1V	0.045	125	30	2.80
TPS1608DC - 2R2M	2.20	M	100KHz, 0.1V	200KHz, 0.1V	0.050	120	40	1.80
TPS1608DC - 3R3M	3.30	M	100KHz, 0.1V	200KHz, 0.1V	0.055	120	40	1.60
TPS1608DC - 4R7M	4.70	M	100KHz, 0.1V	200KHz, 0.1V	0.060	105	40	1.40
TPS1608DC - 6R8M	6.80	M	100KHz, 0.1V	200KHz, 0.1V	0.065	50	40	1.20
TPS1608DC - 100M	10.00	M	100KHz, 0.1V	200KHz, 0.1V	0.075	38	40	1.00
TPS1608DC - 150M	15.00	M	100KHz, 0.1V	200KHz, 0.1V	0.090	33	40	0.80
TPS1608DC - 220M	22.00	M	100KHz, 0.1V	200KHz, 0.1V	0.110	25	40	0.70
TPS1608DC - 330M	33.00	M	100KHz, 0.1V	200KHz, 0.1V	0.190	20	40	0.60
TPS1608DC - 470M	47.00	M	100KHz, 0.1V	200KHz, 0.1V	0.230	20	40	0.50
TPS1608DC - 680M	68.00	M	100KHz, 0.1V	200KHz, 0.1V	0.290	15	40	0.40
TPS1608DC - 101M	100.00	K	100KHz, 0.1V	200KHz, 0.1V	0.480	10	40	0.30
TPS1608DC - 151M	150.00	K	100KHz, 0.1V	200KHz, 0.1V	0.590	9	40	0.26
TPS1608DC - 221M	220.00	K	100KHz, 0.1V	200KHz, 0.1V	0.770	6	40	0.22
TPS1608DC - 331M	330.00	K	100KHz, 0.1V	200KHz, 0.1V	1.400	5	40	0.20
TPS1608DC - 471M	470.00	K	100KHz, 0.1V	200KHz, 0.1V	1.800	4	40	0.19
TPS1608DC - 681M	680.00	K	100KHz, 0.1V	200KHz, 0.1V	2.200	3	40	0.18
TPS1608DC - 102M	1000.00	K	100KHz, 0.1V	200KHz, 0.1V	3.400	2	40	0.15
TPS1608DC - 152M	1500.00	K	100KHz, 0.1V	200KHz, 0.1V	4.200	2	50	0.12
TPS1608DC - 222M	2200.00	K	100KHz, 0.1V	200KHz, 0.1V	8.500	2	50	0.10
TPS1608DC - 332M	3300.00	K	100KHz, 0.1V	200KHz, 0.1V	11.000	1	50	0.08
TPS1608DC - 472M	4700.00	K	100KHz, 0.1V	200KHz, 0.1V	13.900	1	50	0.06
TPS1608DC - 682M	6800.00	K	100KHz, 0.1V	200KHz, 0.1V	25.000	1	50	0.04
TPS1608DC - 103M	10000.00	K	100KHz, 0.1V	200KHz, 0.1V	32.800	0.8	50	0.02

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Current Max..... 30°C temperature rise.**
- **Operating Temp.: -40°C ~ +85°C.**

TPS3316DC

Electrical Characteristics (TPS3316DC)

Part Number	Inductance (µH)	Tolerance	Test Condition	DCR (Ω) Max.	SRF (MHz) Ref.	IDC (A) Max.	IDC (A) Max.
TPS3316DC - 1R0M	1.00	M	100KHz, 0.1V	0.021	140	5.60	5.0
TPS3316DC - 1R5M	1.50	M	100KHz, 0.1V	0.022	120	5.20	4.5
TPS3316DC - 2R2M	2.20	M	100KHz, 0.1V	0.032	80	5.00	3.8
TPS3316DC - 3R3M	3.30	M	100KHz, 0.1V	0.039	70	3.90	3.3
TPS3316DC - 4R7M	4.70	M	100KHz, 0.1V	0.054	40	3.20	2.7
TPS3316DC - 6R8M	6.80	M	100KHz, 0.1V	0.075	38	2.80	2.2
TPS3316DC - 100M	10.00	M	100KHz, 0.1V	0.101	35	2.40	2.0
TPS3316DC - 150M	15.00	M	100KHz, 0.1V	0.150	25	2.00	1.5
TPS3316DC - 220M	22.00	M	100KHz, 0.1V	0.207	19	1.60	1.3
TPS3316DC - 330M	33.00	M	100KHz, 0.1V	0.334	15	1.40	1.1
TPS3316DC - 470M	47.00	M	100KHz, 0.1V	0.472	13	1.00	0.8
TPS3316DC - 680M	68.00	M	100KHz, 0.1V	0.660	10	0.9	0.7
TPS3316DC - 101M	100.00	M	100KHz, 0.1V	1.110	7	0.8	0.6
TPS3316DC - 151M	150.00	M	100KHz, 0.1V	1.550	6	0.6	0.5
TPS3316DC - 221M	220.00	M	100KHz, 0.1V	2.000	5	0.5	0.37
TPS3316DC - 102M	1000.00	M	100KHz, 0.1V	8.300	2	0.32	0.17

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Current Max..... 30°C temperature rise.**
- **Operating Temp.: -40°C ~ +85°C.**

TPS5022DC

Electrical Characteristics (TPS5022DC)

Part Number	Inductance (µH)	Tolerance	Test Condition	DCR (Ω) Max.	SRF (MHz) Ref.	IDC (A) Max.	IDC (A) Max.
TPS5022DC - 100M	10.00	M	100KHz, 0.1V	0.040	30	8.00	3.9
TPS5022DC - 150M	15.00	M	100KHz, 0.1V	0.048	20	7.00	3.4
TPS5022DC - 220M	22.00	M	100KHz, 0.1V	0.059	18	6.00	3.1
TPS5022DC - 330M	33.00	M	100KHz, 0.1V	0.075	14	5.00	2.8
TPS5022DC - 470M	47.00	M	100KHz, 0.1V	0.097	10	4.00	2.4
TPS5022DC - 680M	68.00	M	100KHz, 0.1V	0.138	9.0	3.00	2.0
TPS5022DC - 101M	100.00	M	100KHz, 0.1V	0.207	7.0	2.40	1.7
TPS5022DC - 151M	150.00	M	100KHz, 0.1V	0.293	6.0	2.10	1.3
TPS5022DC - 221M	220.00	M	100KHz, 0.1V	0.470	5.0	1.90	1.1
TPS5022DC - 331M	330.00	M	100KHz, 0.1V	0.780	4.0	1.10	0.86
TPS5022DC - 471M	470.00	M	100KHz, 0.1V	1.080	3.0	1.10	0.73
TPS5022DC - 681M	680.00	M	100KHz, 0.1V	1.400	2.5	0.96	0.64
TPS5022DC - 102M	1000.00	M	100KHz, 0.1V	2.010	2.0	0.80	0.53

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Current Max..... 30°C temperature rise.**
- **Operating Temp.: -40°C ~ +85°C.**

Order Codes

Order Codes (TPS1608DC, TPS3316DC, TPS5022DC)

TPS1608DC	-	100	M

Part Number
TPS1608DC
TPS3316DC
TPS5022DC

Inductance	
1R0	1.00μH
100	10.00μH
101	100.00μH

Tolerance	
K	10%
L	15%
M	20%
N	30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSDS) Low DCR High Current Inductors

Product Introduction

Token (TPSDS) SMD Power Inductor packs low DCR, low profile, high current all in one.

Inductor Selection Overview :

- TPSDS0620:(6.3 x 6.2 x 2.0 mm); 1.00μH ~ 47.00μH; DCR 0.022Ω ~ 0.730Ω; IDC 3.50A ~ 0.50A.
- TPSDS0625:(6.3 x 6.2 x 2.5 mm); 1.00μH ~ 100.00μH; DCR 0.018Ω ~ 0.800Ω; IDC 3.48A ~ 0.33A.
- TPSDS0630:(6.3 x 6.2 x 3.0 mm); 1.00μH ~ 150.00μH; DCR 0.017Ω ~ 0.750Ω; IDC 3.59A ~ 0.31A.
- TPSDS0635:(6.3 x 6.2 x 3.5 mm); 2.00μH ~ 150.00μH; DCR 0.020Ω ~ 0.650Ω; IDC 3.00A ~ 0.37A.
- TPSDS104:(10.4 x 10.3 x 3.5 mm); 1.10μH ~ 120.00μH; DCR 0.011Ω ~ 0.460Ω; IDC 11.70A ~ 0.97A.
- TPSDS106:(10.4 x 10.3 x 6.8 mm); 1.10μH ~ 680.00μH; DCR 0.014Ω ~ 1.500Ω; IDC 7.00A ~ 0.47A.
- TPSDS126:(12.8 x 12.6 x 6.8 mm); 1.70μH ~ 680.00μH; DCR 0.010Ω ~ 1.120Ω; IDC 11.80A ~ 0.55A.

Features :

- Compact and thin.
- Large Current and Low DCR.
- Magnetically shielded construction.

Applications :

- TV game, Computer devices.
- Ideal for a variety of DC-DC converter inductor applications.

Token's new (TPSDS) power inductor series has improved and combined three key factors of low direct current resistance (DCR), high-current, and low-profile in one package. This consists of the internal wound coil being packed tightly with magnetic iron powder and a shielded case that helps the inductor to produce a much lower audible noise.

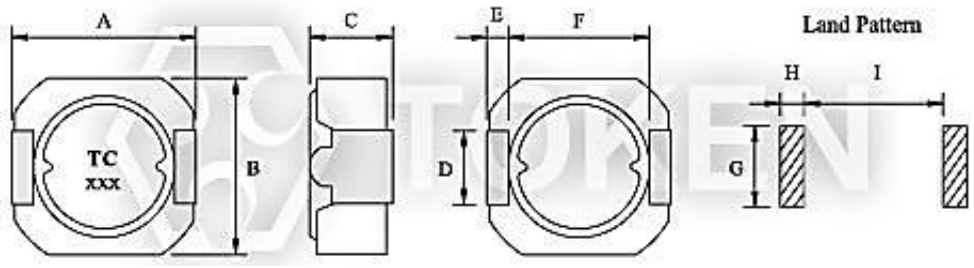
The (TPSDS) inductor serves as a space-saving, high-performing, and power-saving solution for low-profile, high-current power supplies and point of distributed power systems; DC-to-DC converter; voltage regulator module (VRM) and load (POL) converters applications in end products including next-generation mobile devices; personal multimedia devices, automotive systems, notebooks, desktop computers, servers, graphic cards, field-programmable gate arrays (FPGAs), portable gaming devices, and personal navigation systems.

Token SMT shielded power inductors (TPSDS) series conform to the RoHS directive and Lead-free. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Custom parts are available on request. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (TPSDS)

Type	A Max.	B Max.	C Max.	D ± 0.2	E Max.	F	G	H	I
TPSDS0620	6.3	6.2	2.0	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS0625	6.3	6.2	2.5	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS0630	6.3	6.2	3.0	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS0635	6.3	6.2	3.5	2.0	0.6	4.6	2.6	1.0	4.6
TPSDS104	10.4	10.3	4.8	3.0	2.0	6.0	3.6	2.65	5.4
TPSDS106	10.4	10.3	6.8	3.0	2.0	6.0	3.6	2.65	5.4
TPSDS126	12.8	12.6	6.8	3.0	2.0	8.5	3.6	2.60	7.9



SMD High Current Inductor (TPSDS) Dimensions

- Note: Design as Customer's Requested Specifications.

TPSDS0620

Electrical Characteristics (TPSDS0620)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS0620 - 1R0N	1.00	100	0.022	3.50
TPSDS0620 - 1R5N	1.50	100	0.030	2.94
TPSDS0620 - 2R0N	2.00	100	0.040	2.47
TPSDS0620 - 3R3N	3.30	100	0.055	1.99
TPSDS0620 - 4R7N	4.70	100	0.070	1.59
TPSDS0620 - 6R2N	6.20	100	0.110	1.49
TPSDS0620 - 8R2N	8.20	100	0.140	1.25
TPSDS0620 - 100M	10.00	100	0.160	1.22
TPSDS0620 - 120M	12.00	100	0.200	0.99
TPSDS0620 - 150M	15.00	100	0.230	0.94
TPSDS0620 - 180M	18.00	100	0.260	0.83
TPSDS0620 - 220M	22.00	100	0.310	0.80
TPSDS0620 - 270M	27.00	100	0.390	0.65
TPSDS0620 - 330M	33.00	100	0.510	0.63
TPSDS0620 - 390M	39.00	100	0.570	0.55
TPSDS0620 - 470M	47.00	100	0.730	0.50

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85°C.**
- **Inductance drop=30% typ. at IDC.**

TPSDS0625

Electrical Characteristics (TPSDS0625)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS0625 - 1R0N	1.00	100	0.018	3.48
TPSDS0625 - 1R5N	1.50	100	0.024	2.83
TPSDS0625 - 2R0N	2.00	100	0.032	2.44
TPSDS0625 - 3R3N	3.30	100	0.045	1.89
TPSDS0625 - 4R3N	4.30	100	0.055	1.65
TPSDS0625 - 6R2N	6.20	100	0.065	1.37
TPSDS0625 - 100M	10.00	100	0.095	1.07
TPSDS0625 - 120M	12.00	100	0.120	0.97
TPSDS0625 - 150M	15.00	100	0.150	0.87
TPSDS0625 - 180M	18.00	100	0.180	0.79
TPSDS0625 - 220M	22.00	100	0.210	0.71
TPSDS0625 - 270M	27.00	100	0.240	0.64
TPSDS0625 - 330M	33.00	100	0.280	0.58
TPSDS0625 - 390M	39.00	100	0.330	0.53
TPSDS0625 - 470M	47.00	100	0.390	0.48
TPSDS0625 - 560M	56.00	100	0.450	0.44
TPSDS0625 - 680M	68.00	100	0.560	0.40
TPSDS0625 - 820M	82.00	100	0.620	0.36
TPSDS0625 - 101M	100.00	100	0.800	0.33

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=30% typ. at IDC.**

TPSDS0630

Electrical Characteristics (TPSDS0630)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS0630 - 1R0N	1.00	100	0.017	3.59
TPSDS0630 - 1R5N	1.50	100	0.021	2.93
TPSDS0630 - 2R2N	2.20	100	0.024	2.42
TPSDS0630 - 3R6N	3.60	100	0.033	1.89
TPSDS0630 - 4R7N	4.70	100	0.042	1.66
TPSDS0630 - 6R2N	6.20	100	0.050	1.45
TPSDS0630 - 100M	10.00	100	0.065	1.14
TPSDS0630 - 120M	12.00	100	0.072	1.04
TPSDS0630 - 150M	15.00	100	0.096	0.93
TPSDS0630 - 180M	18.00	100	0.103	0.85
TPSDS0630 - 220M	22.00	100	0.132	0.77
TPSDS0630 - 270M	27.00	100	0.160	0.70
TPSDS0630 - 330M	33.00	100	0.180	0.63
TPSDS0630 - 390M	39.00	100	0.200	0.58
TPSDS0630 - 470M	47.00	100	0.250	0.53
TPSDS0630 - 560M	56.00	100	0.300	0.48
TPSDS0630 - 680M	68.00	100	0.360	0.44
TPSDS0630 - 820M	82.00	100	0.450	0.40
TPSDS0630 - 101M	100.00	100	0.560	0.36
TPSDS0630 - 151M	150.00	100	0.750	0.31

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=30% typ. at IDC.**

TPSDS0635

Electrical Characteristics (TPSDS0635)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS0635 - 2R0N	2.00	100	0.020	3.00
TPSDS0635 - 2R7N	2.70	100	0.025	2.69
TPSDS0635 - 3R3N	3.30	100	0.030	2.57
TPSDS0635 - 4R7N	4.70	100	0.035	2.08
TPSDS0635 - 6R2N	6.20	100	0.040	1.84
TPSDS0635 - 8R2N	8.20	100	0.055	1.54
TPSDS0635 - 100M	10.00	100	0.065	1.49
TPSDS0635 - 120M	12.00	100	0.072	1.28
TPSDS0635 - 150M	15.00	100	0.078	1.10
TPSDS0635 - 180M	18.00	100	0.098	1.05
TPSDS0635 - 220M	22.00	100	0.115	0.97
TPSDS0635 - 270M	27.00	100	0.150	0.82
TPSDS0635 - 330M	33.00	100	0.175	0.76
TPSDS0635 - 390M	39.00	100	0.200	0.70
TPSDS0635 - 470M	47.00	100	0.240	0.68
TPSDS0635 - 560M	56.00	100	0.300	0.60
TPSDS0635 - 680M	68.00	100	0.330	0.56
TPSDS0635 - 820M	82.00	100	0.420	0.47
TPSDS0635 - 101M	100.00	100	0.470	0.45
TPSDS0635 - 151M	150.00	100	0.650	0.37

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=30% typ. at IDC.**

TPSDS104

Electrical Characteristics (TPSDS104)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS104 - 1R1N	1.10	100	0.011	11.70
TPSDS104 - 1R8N	1.80	100	0.014	8.70
TPSDS104 - 2R7N	2.70	100	0.016	7.30
TPSDS104 - 3R9N	3.90	100	0.018	5.80
TPSDS104 - 5R1N	5.10	100	0.026	4.90
TPSDS104 - 6R8N	6.80	100	0.035	4.50
TPSDS104 - 8R2N	8.20	100	0.040	4.10
TPSDS104 - 100M	10.00	100	0.044	3.60
TPSDS104 - 120M	12.00	100	0.051	3.30
TPSDS104 - 150M	15.00	100	0.062	3.10
TPSDS104 - 180M	18.00	100	0.079	2.70
TPSDS104 - 220M	22.00	100	0.087	2.40
TPSDS104 - 270M	27.00	100	0.100	2.20
TPSDS104 - 330M	33.00	100	0.125	2.00
TPSDS104 - 390M	39.00	100	0.150	1.80
TPSDS104 - 470M	47.00	100	0.175	1.70
TPSDS104 - 560M	56.00	100	0.195	1.50
TPSDS104 - 680M	68.00	100	0.240	1.30
TPSDS104 - 820M	82.00	100	0.295	1.20
TPSDS104 - 101M	100.00	100	0.380	1.10
TPSDS104 - 121M	120.00	100	0.460	0.97

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=30% typ. at IDC.**

TPSDS106

Electrical Characteristics (TPSDS106)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS106 - 1R1N	1.10	100	0.014	7.00
TPSDS106 - 1R8N	1.80	100	0.018	6.50
TPSDS106 - 2R7N	2.70	100	0.020	6.00
TPSDS106 - 3R5N	3.50	100	0.022	5.60
TPSDS106 - 4R7N	4.70	100	0.024	5.20
TPSDS106 - 6R0N	6.00	100	0.026	4.80
TPSDS106 - 7R5N	7.50	100	0.030	4.20
TPSDS106 - 100M	10.00	100	0.035	4.00
TPSDS106 - 120M	12.00	100	0.040	3.50
TPSDS106 - 150M	15.00	100	0.050	3.20
TPSDS106 - 180M	18.00	100	0.060	3.00
TPSDS106 - 220M	22.00	100	0.065	2.60
TPSDS106 - 270M	27.00	100	0.075	2.20
TPSDS106 - 330M	33.00	100	0.095	2.00
TPSDS106 - 390M	39.00	100	0.110	1.90
TPSDS106 - 470M	47.00	100	0.135	1.80
TPSDS106 - 560M	56.00	100	0.145	1.70
TPSDS106 - 680M	68.00	100	0.155	1.60
TPSDS106 - 820M	82.00	100	0.185	1.50
TPSDS106 - 101M	100.00	100	0.220	1.40
TPSDS106 - 121M	120.00	100	0.255	1.30
TPSDS106 - 151M	150.00	100	0.280	1.10
TPSDS106 - 181M	180.00	100	0.350	1.00
TPSDS106 - 221M	220.00	100	0.460	0.85
TPSDS106 - 271M	270.00	100	0.600	0.70
TPSDS106 - 331M	330.00	100	0.700	0.60
TPSDS106 - 391M	390.00	100	0.860	0.55
TPSDS106 - 471M	470.00	100	1.100	0.53
TPSDS106 - 561M	560.00	100	1.250	0.50
TPSDS106 - 681M	680.00	100	1.500	0.47

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=30% typ. at IDC.**

TPSDS126

Electrical Characteristics (TPSDS126)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSDS126 - 1R7N	1.70	100	0.010	11.80
TPSDS126 - 2R7N	2.70	100	0.011	9.00
TPSDS126 - 3R9N	3.90	100	0.014	7.90
TPSDS126 - 5R6N	5.60	100	0.016	6.80
TPSDS126 - 7R5N	7.50	100	0.017	5.70
TPSDS126 - 100N	10.00	100	0.023	5.50
TPSDS126 - 120N	12.00	100	0.027	5.00
TPSDS126 - 150N	15.00	100	0.032	4.50
TPSDS126 - 180N	18.00	100	0.040	4.10
TPSDS126 - 220N	22.00	100	0.046	3.60
TPSDS126 - 270N	27.00	100	0.050	3.20
TPSDS126 - 330M	33.00	100	0.064	3.00
TPSDS126 - 390M	39.00	100	0.074	2.70
TPSDS126 - 470M	47.00	100	0.082	2.40
TPSDS126 - 560M	56.00	100	0.105	2.00
TPSDS126 - 680M	68.00	100	0.120	1.70
TPSDS126 - 820M	82.00	100	0.145	1.60
TPSDS126 - 101M	100.00	100	0.170	1.50
TPSDS126 - 121M	120.00	100	0.185	1.30
TPSDS126 - 151M	150.00	100	0.235	1.20
TPSDS126 - 181M	180.00	100	0.290	1.10
TPSDS126 - 221M	220.00	100	0.350	1.00
TPSDS126 - 271M	270.00	100	0.415	0.93
TPSDS126 - 331M	330.00	100	0.495	0.83
TPSDS126 - 391M	390.00	100	0.610	0.76
TPSDS126 - 471M	470.00	100	0.705	0.67
TPSDS126 - 561M	560.00	100	0.900	0.62
TPSDS126 - 681M	680.00	100	1.120	0.55

Note:

- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=30% typ. at IDC.**

Order Codes

Order Codes (TPSDS)

TPSDS0620	-	1R1	N

Part Number	
TPSDS0620	TPSDS104
TPSDS0630	TPSDS106
TPSDS0625	TPSDS126
TPSDS0635	

Inductance	
1R1	1.10μH
120	12.00μH
121	120.00μH

Tolerance	
M	20%
N	30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSRH)
Large Current Power Inductors

Product Introduction

Token (TPSRH) shielded large current inductor family series expand power applications.

Features :
- Magnerically shielded construction.
- Excellent solderabillity and high heat resistance.
- Various high power inductors are superior to be high Saturation for surface mounting.

Applications :
- Power supply for VCRS; OA equipment Digital camera, LCD television set notebook PC, portable communication Equipments, DC/DC converters, etc.

TPSRH63 and TPSRH65 are directly connected electrode on ferrite core with excellent property and high saturation for surface mounting.

Token enhances chip power inductor (TPSRH) family series covering complete footprint with profile from 3.0 mm to 10.8 mm, inductance from 1.00 µH to 1000.00 µH, low DCR 0.008Ω to 21.6Ω, and Rated Current up to 10.0A.

Token (TPSRH) with wire wound and magnetically shielded construction offers a variety of characteristics and high performace. Customers can select the optimum characteristics by choosing from footprint, DCR, and a wide range of inductance values and tolerances with some types offering magnetic shielding.

The series is lead-free and RoHS compliant. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Configurations & Dimensions

Dimensions & Configurations (Unit: mm) (TPSRH-124/125/127)

Type	A ± 0.5	B ± 0.5	C (Max)	D (Red)	E (Red)	F (Red)	FIG
TPSRH63	6.2	6.6	3.0	1.5	6.6	5.9	1
TPSRH65	6.2	6.6	5.0	1.5	6.6	5.9	1
TPSRH73	7.3	7.3	3.5	1.8	7.2	5.4	2
TPSRH74	7.3	7.3	4.5	1.8	7.2	5.4	2
TPSRH105	10.0	10.0	5.0	3	9.6	7.6	3
TPSRH124	12.0	12.0	4.5	5	11.8	7.6	3
TPSRH125	12.0	12.0	6.0	5	11.8	7.6	3
TPSRH127	12.0	12.0	8.0	5	12	7.6	3
TPSRH129 *	12.0	12.0	10.0	5	12	7.6	3
TPSRH1510 *	15.0	15.0	10.8	5	15	7.6	3

FIG 1

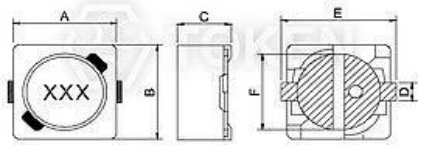


FIG 2

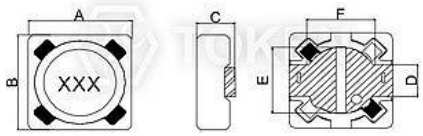
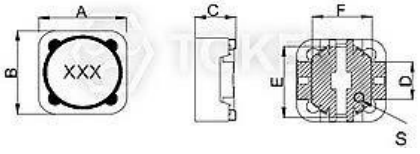


FIG 3



- * Custom parts are available on request.

TPSRH63/65/73/74/105

Electrical Characteristics (TPSRH63/65/73/74/105)

Inductance (µH)		TPSRH63		TPSRH65		TPSRH73		TPSRH74		TPSRH105	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
2R2	2.9	0.057	1.94								
4R0	4.0	0.070	1.63								
5R5	5.5	0.085	1.40								
100	10	0.150	1.10	0.074	1.35	0.081	2.24	0.070	1.84	0.050	2.40
120	12	0.176	1.00	0.094	1.22	0.114	1.89	0.078	1.71	0.054	2.25
150	15	0.212	0.90	0.109	1.11	0.137	1.75	0.093	1.47	0.071	2.0
180	18	0.270	0.80	0.143	1.02	0.155	1.54	0.122	1.31	0.081	1.8
220	22	0.290	0.74	0.170	0.91	0.190	1.47	0.140	1.23	0.094	1.65
270	27	0.360	0.66	0.208	0.82	0.210	1.40	0.183	1.12	0.110	1.45
330	33	0.420	0.59	0.270	0.74	0.240	1.23	0.207	0.96	0.134	1.35
390	39	0.510	0.54	0.300	0.69	0.320	1.08	0.25	0.91	0.148	1.2
470	47	0.570	0.50	0.350	0.62	0.400	1.0	0.30	0.88	0.199	1.1
560	56	0.720	0.46	0.43	0.58	0.49	0.91	0.36	0.75	0.233	1.0
680	68	0.92	0.42	0.53	0.56	0.560	0.84	0.44	0.69	0.31	0.93
820	82	1.010	0.38	0.58	0.46	0.69	0.74	0.48	0.61	0.36	0.84
101	100	1.25	0.34	0.74	0.42	0.79	0.70	0.56	0.60	0.39	0.76
121	120	1.40	0.31	0.81	0.38	0.98	0.63	0.70	0.52	0.47	0.70
151	150	1.77	0.28	0.91	0.35	1.11	0.58	0.79	0.46	0.53	0.63
181	180	2.04	0.26	1.14	0.32	1.45	0.52	0.96	0.42	0.68	0.57
221	220	2.80	0.23	1.27	0.29	1.82	0.48	1.22	0.36	0.82	0.52
271	270	3.21	0.22	1.65	0.26	2.19	0.42	1.51	0.34	0.92	0.47
331	330	4.15	0.19	2.17	0.23	2.62	0.39	1.72	0.32	1.13	0.43
391	390			2.47	0.22	3.33	0.35	2.11	0.29	1.39	0.39
471	470			2.93	0.20	3.86	0.32	2.43	0.26	1.66	0.36
561	560			3.47	0.18	4.30	0.29	3.16	0.23		
681	680			4.36	0.17	5.73	0.19	3.54	0.22		
821	820			4.77	0.15	6.54	0.18	4.49	0.2		
102	1000			6.42	0.14	8.25	0.16	5.80	0.18		

Note:

- **Measuring Frequency. L:<100µH (100KHz/0.25v) L: >100µH Above(1KHz/0.25v) .**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt=40℃ (ta=20℃).**

TPSRH124/125/127

Electrical Characteristics (TPSRH124/125/127)

Inductance (µH)		TPSRH124		TPSRH125		TPSRH127	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
1R2	1.2					0.007	9.8
1R3	1.3			0.008	8.0		
2R2	2.1			0.009	7.0		
3R3	3.1			0.010	6.0		
3R5	3.5					0.014	7.5
3R9	3.9	0.015	6.50	0.012	5.5		
4R7	4.7	0.018	5.70	0.014	5.0	0.016	6.8
5R8	5.8			0.018	4.4		
6R1	6.1			0.020	4.4	0.018	6.6
6R8	6.8	0.023	4.90				
7R5	7.5			0.024	4.2		
7R6	7.6					0.020	5.9
100	10	0.028	4.50	0.022	4	0.022	4.9
150	15	0.050	3.20	0.32	3.3	0.026	4.5
180	18	0.057	3.10	0.045	3.0	0.039	3.9
220	22	0.066	2.90	0.052	2.8	0.043	3.6
270	27	0.080	2.80	0.059	2.3	0.046	3.4
330	33	0.097	2.7	0.067	2.1	0.065	3.0
390	39	0.132	2.10	0.090	2.0	0.073	2.75
470	47	0.160	1.90	0.098	1.8	0.100	2.5
560	56	0.190	1.80	0.110	1.7	0.110	2.35
680	68	0.22	1.5	0.126	1.5	0.140	2.1
820	82	0.26	1.3	0.160	1.4	0.160	1.95
101	100	0.308	1.20	0.183	1.3	0.220	1.7
121	120	0.330	1.10	0.200	1.1	0.250	1.6
151	150	0.530	0.95	0.240	1.0	0.280	1.42
181	180	0.620	0.85	0.300	0.9	0.350	1.3
221	220	0.700	0.80	0.350	0.8	0.390	1.16
271	270	0.870	0.60	0.430	0.75	0.560	1.06
331	330	0.900	0.50	0.490	0.68	0.640	0.95
391	390			0.580	0.65	0.700	0.88
471	470			0.770	0.58	0.980	0.79
561	560			1.010	0.54	1.07	0.73
681	680			1.200	0.48	1.46	0.67
821	820			1.340	0.43	1.64	
102	1000			1.530	0.40	1.82	0.55

Note:

- **Measuring Frequency. L:<100µH (100KHz/0.25v) L: >100µH Above(1KHz/0.25v) .**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt=40°C (ta=20°C).**

Order Codes

Order Codes (TPSRH)

TPSRH63	-	2R2	N

Part Number
TPSRH63
TPSRH65
TPSRH73
TPSRH74
TPSRH105
TPSRH124
TPSRH125
TPSRH127

Inductance	
2R2	2.20μH
120	12.00μH
121	120.00μH
102	1000.00μH

Tolerance	
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

Product Introduction

Token (TPSRH) shielded large current inductor family series is a strong choice for Power saving.

Features :

- Magnerically shielded construction.
- Excellent solderabillity and high heat resistance.
- Various high power inductors are superior to be high Saturation for surface mounting.

Applications :

- Power supply for VCRS; OA equipment Digital camera, LCD television set notebook PC, portable communication Equipments, DC/DC converters, etc.

Token four pin terminals flexible design Surface Mount Wirewound Inductor constructs with four terminal pin type which gives a flexible design as inductors or transformers (SEPIC, ZETA circuit, etc).

Provide wide inductance range from 2.5μH to 1000.0μH in parallel connection, low direct current resistance (DCR) down to 0.018Ω, and large current up to 14.9A. These devices are directly connected electrode on ferrite core with excellent property and high saturation for surface mounting.

Token enhances surface mount inductor (TPSRH) family series covering complete footprint with profile from 4.8 mm to 8.5 mm, inductance from 1.00 μH to 1000.00 μH, low DCR, and Rated Current uo to 10.0A.

Token (TPSRH74B/125B/127B) with wire wound and magnetically shielded construction offers a variety of characteristics and high performace. Customers can select the optimum characteristics by choosing from footprint, DCR, and a wide range of inductance values and tolerances with some types offering magnetic shielding.

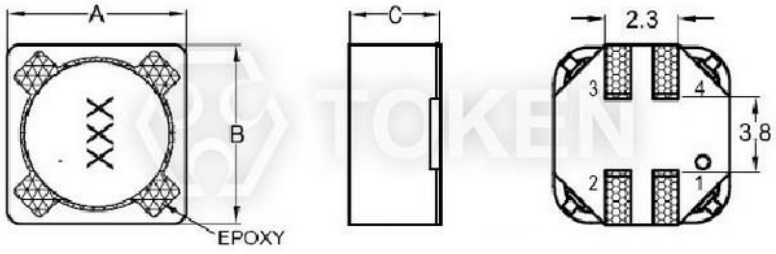
The series is lead-free and RoHS compliant. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website “SMD Power Inductors” for more information.

Dimensions

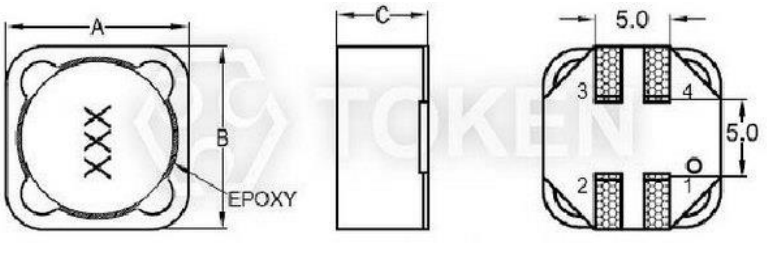
Dimensions & Configurations (Unit: mm) (TPSRH-74B/125B/127B)

Type	A Max.	B Max.	C Max.	I	J	H	K
TPSRH74B	7.3±0.3	7.3±0.3	4.8	1.1	0.8	2.1	7.5
TPSRH125B	12.0±0.3	12.0±0.3	6.5	2.0	1.5	4.0	12.5
TPSRH127B	12.0±0.3	12.0±0.3	8.5	2.0	1.5	4.0	12.5

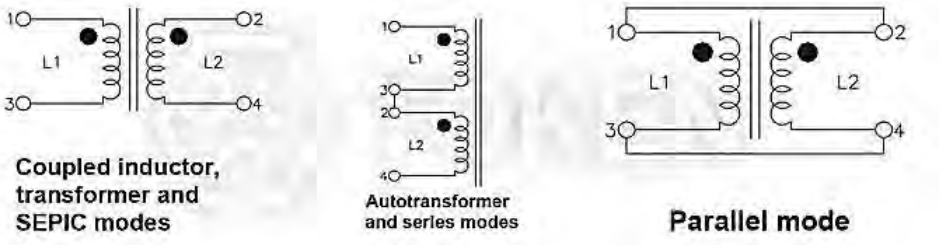
TPSRH74B



TPSRH125B
TPSRH127B



Electrical Schematic



- **Note: Design as Customer's Requested Specifications.**

TPSRH74B

Winding Schematics (TPSRH74B)

PART NO	1eads connected in parallel					1eads connected in series				
	L (µH)	DCR (OHM) Max.	Isat (A) 30%drop typ	SRF MHz	Irms (A)	L (µH)	DCR (OHM) Max.	Isat (A) 30%drop typ	SRF MHz	Irms (A)
TPSRH74B-2R5	2.5	0.018	6.30	55.0	4.33	10.0	0.072	3.15	17.60	2.17
TPSRH74B-3R3	3.3	0.022	5.40	43.0	4.09	13.2	0.088	2.70	12.90	2.05
TPSRH74B-4R7	4.7	0.026	4.60	35.0	3.48	18.8	0.102	2.30	9.80	1.74
TPSRH74B-5R6	5.6	0.032	4.20	32.0	3.14	22.4	0.126	2.10	8.48	1.57
TPSRH74B-6R8	6.8	0.035	3.90	30.0	2.97	27.2	0.140	1.95	7.92	1.49
TPSRH74B-8R2	8.2	0.043	3.50	27.0	2.87	32.8	0.172	1.75	7.10	1.44
TPSRH74B-100	10	0.050	3.00	22.0	2.49	40	0.20	1.50	5.75	1.24
TPSRH74B-120	12	0.060	2.70	20.0	2.28	48	0.24	1.35	5.18	1.14
TPSRH74B-150	15	0.070	2.40	18.0	2.18	60	0.28	1.20	4.59	1.09
TPSRH74B-180	18	0.085	2.30	15.0	1.91	72	0.34	1.15	3.80	0.95
TPSRH74B-220	22	0.110	2.10	13.5	1.68	88	0.44	1.05	3.38	0.84
TPSRH74B-270	27	0.125	1.90	12.0	1.57	108	0.50	0.95	2.98	0.79
TPSRH74B-330	33	0.150	1.70	11.0	1.51	132	0.60	0.85	2.68	0.76
TPSRH74B-390	39	0.190	1.50	10.0	1.27	156	0.76	0.75	2.40	0.64
TPSRH74B-470	47	0.21	1.40	9.50	1.22	188	0.84	0.70	2.23	0.61
TPSRH74B-560	56	0.27	1.30	8.70	1.16	224	1.08	0.65	2.16	0.58
TPSRH74B-680	68	0.32	1.20	7.30	1.02	272	1.28	0.60	1.73	0.51
TPSRH74B-820	82	0.36	1.10	6.20	0.95	328	1.44	0.55	1.35	0.49
TPSRH74B-101	100	0.45	0.98	5.50	0.89	400	1.80	0.49	1.18	0.45
TPSRH74B-121	120	0.56	0.90	4.50	0.78	480	2.24	0.45	1.10	0.39
TPSRH74B-151	150	0.675	0.80	4.00	0.68	600	2.70	0.40	0.82	0.34
TPSRH74B-181	180	0.83	0.73	3.80	0.61	720	3.32	0.36	0.72	0.32
TPSRH74B-221	220	1.10	0.66	3.50	0.59	880	4.40	0.33	0.63	0.30
TPSRH74B-271	270	1.30	0.60	3.30	0.51	1080	5.20	0.30	0.58	0.25
TPSRH74B-331	330	1.60	0.54	3.00	0.48	1320	6.40	0.27	0.53	0.24
TPSRH74B-391	390	2.10	0.50	2.80	0.45	1560	8.40	0.25	0.48	0.23
TPSRH74B-471	470	2.35	0.46	2.60	0.40	1880	9.40	0.23	0.42	0.20
TPSRH74B-561	560	2.65	0.42	2.50	0.37	2240	10.6	0.21	0.39	0.19
TPSRH74B-681	680	3.50	0.38	2.30	0.35	2720	14.0	0.19	0.34	0.18
TPSRH74B-821	820	3.90	0.35	2.20	0.30	3280	15.6	0.175	0.32	0.15
TPSRH74B-102	1000	5.40	0.31	2.00	0.28	4000	21.6	0.155	0.28	0.144

Remark:

- **DCR is for both windings . DC current at which the inductance drops 30% (typ) from its value without current . Inductance tolerance: 4.7µH～100µH tolerance can be done "M" 120µH～1000µH tolerance can be done "K" .**

Note:

- **Inductance shown for coupled inductor and for two inductors connected in parallel .**
- **Inductance is measured at 100KHz.0.1Vrms.0Adc on an Agilent/HP 4284ALC meter or equivalent .**
- **DCR is for both windings when connected in parallel.DCR for each winding is twice the Value .**
- **SRF measured using Agilent/HP E4991A or equivalent .**
- **Current that causes a 40°C temperature rise from 25°C ambient .**

TPSRH125B

Winding Schematics (TPSRH125B)

PART NO	1eads connected in parallel					1eads connected in series				
	L (µH)	DCR (OHM) Max.	Isat (A) 30%drop typ	SRF MHz	Irms (A)	L (µH)	DCR (OHM) Max.	Isat (A) 30%drop typ	SRF MHz	Irms (A)
TPSRH125B-4R7	4.7	0.018	10.30	32.0	7.2	18.8	0.072	5.15	12.00	3.4
TPSRH125B-5R6	5.6	0.020	9.66	31.0	7.0	22.4	0.080	4.83	10.30	3.3
TPSRH125B-6R8	6.8	0.024	9.21	28.0	6.6	27.2	0.095	4.61	8.40	3.2
TPSRH125B-8R2	8.2	0.026	8.55	25.0	6.4	32.8	0.104	4.28	7.10	3.1
TPSRH125B-100	10	0.030	7.40	22.0	5.40	40.0	0.120	3.70	6.00	2.8
TPSRH125B-120	12	0.037	6.86	21.0	5.2	48.0	0.147	3.43	5.80	2.7
TPSRH125B-150	15	0.042	6.09	17.6	4.6	60	0.170	3.05	5.50	2.5
TPSRH125B-180	18	0.048	5.30	17.0	4.4	72	0.194	2.65	5.00	2.2
TPSRH125B-220	22	0.058	5.01	15.0	4.2	88	0.232	2.51	4.10	2.1
TPSRH125B-270	27	0.062	4.66	13.6	3.7	108	0.248	2.33	3.50	1.9
TPSRH125B-330	33	0.067	4.22	12.7	3.6	132	0.268	2.11	3.10	1.6
TPSRH125B-390	39	0.071	3.80	11.7	3.2	156	0.284	1.90	2.80	1.5
TPSRH125B-470	47	0.087	3.25	8.7	2.9	188	0.348	1.63	2.00	1.4
TPSRH125B-560	56	0.099	3.07	7.6	2.7	224	0.396	1.54	2.00	1.3
TPSRH125B-680	68	0.108	2.83	6.1	2.5	272	0.432	1.42	1.80	1.2
TPSRH125B-820	82	0.137	2.55	5.3	2.3	328	0.548	1.28	1.60	1.1
TPSRH125B-101	100	0.161	2.20	5.0	1.9	400	0.642	1.10	1.40	1.0
TPSRH125B-121	120	0.209	2.05	4.4	1.8	480	0.834	1.03	1.20	0.8
TPSRH125B-151	150	0.238	1.82	4.0	1.7	600	0.952	0.91	1.10	0.78
TPSRH125B-181	180	0.268	1.60	3.6	1.6	720	1.072	0.80	0.81	0.75
TPSRH125B-221	220	0.346	1.51	3.2	1.5	880	1.382	0.76	0.74	0.71
TPSRH125B-271	270	0.403	1.41	2.8	1.4	1080	1.61	0.71	0.63	0.65
TPSRH125B-331	330	0.545	1.28	2.5	1.2	1320	2.18	0.64	0.60	0.56
TPSRH125B-391	390	0.600	1.16	2.3	1.0	1560	2.40	0.58	0.52	0.50
TPSRH125B-471	470	0.795	1.00	2.1	0.86	1880	3.18	0.50	0.43	0.41
TPSRH125B-561	560	0.905	0.95	2.0	0.80	2240	3.62	0.48	0.36	0.38
TPSRH125B-681	680	1.030	0.88	1.8	0.74	2720	4.12	0.44	0.32	0.35
TPSRH125B-821	820	1.325	0.79	1.5	0.67	3280	5.30	0.40	0.27	0.32
TPSRH125B-102	1000	1.530	0.69	1.20	0.50	4000	6.12	0.35	0.23	0.29

Remark:

- **DCR is for both windings . DC current at which the inductance drops 30% (typ) from its value without current . Inductance tolerance: 4.7µH～100µH tolerance can be done "M" 120µH～1000µH tolerance can be done "K" .**

Note:

- **Inductance shown for coupled inductor and for two inductors connected in parallel .**
- **Inductance is measured at 100KHz.0.1Vrms.0Adc on an Agilent/HP 4284ALC meter or equivalent .**
- **DCR is for both windings when connected in parallel.DCR for each winding is twice the Value .**
- **SRF measured using Agilent/HP E4991A or equivalent .**
- **Current that causes a 40°C temperature rise from 25°C ambient .**

TPSRH127B

Winding Schematics (TPSRH127B)

PART NO	1eads connected in parallel					1eads connected in series				
	L (µH)	DCR (OHM) Max.	Isat (A) 30%drop typ	SRF MHz	Irms (A)	L (µH)	DCR (OHM) Max.	Isat (A) 30%drop typ	SRF MHz	Irms (A)
TPSRH127B-4R7	4.7	0.019	14.90	32.0	7.4	18.8	0.076	7.70	12.0	3.6
TPSRH127B-5R6	5.6	0.023	13.40	25.0	7.2	22.4	0.092	6.60	10.4	3.5
TPSRH127B-6R8	6.8	0.024	13.10	24.0	6.9	27.2	0.096	6.40	9.5	3.4
TPSRH127B-8R2	8.2	0.025	10.80	18.0	6.6	32.8	0.100	5.60	7.2	3.3
TPSRH127B-100	10	0.029	10.50	16.5	6.2	40.0	0.116	5.40	6.6	3.2
TPSRH127B-150	15	0.036	9.10	11.8	5.8	60	0.144	4.30	5.0	2.7
TPSRH127B-180	18	0.040	8.00	10.5	5.5	72	0.158	3.90	3.8	2.5
TPSRH127B-220	22	0.048	6.80	9.0	5.2	88	0.190	3.50	3.4	2.2
TPSRH127B-270	27	0.060	6.50	8.4	4.7	108	0.240	.3.40	3.2	2.0
TPSRH127B-330	33	0.075	5.60	7.6	4.2	132	0.300	3.10	3.0	1.4
TPSRH127B-390	39	0.080	5.50	6.5	3.6	156	0.320	2.80	2.6	1.6
TPSRH127B-470	47	0.090	5.20	6.0	3.0	188	0.360	2.60	2.1	1.5
TPSRH127B-560	23	0.095	4.50	5.6	2.8	224	0.380	2.4	2.0	1.4
TPSRH127B-680	68	0.105	4.10	5.0	2.6	272	0.420	2.10	1.6	1.3
TPSRH127B-820	82	0.140	3.80	4.1	2.3	328	0.560	1.90	1.3	1.2
TPSRH127B-101	100	0.150	3.40	3.6	2.0	400	0.600	1.70	1.1	1.1
TPSRH127B-121	120	0.205	3.20	3.2	1.9	480	0.820	1.60	1.0	1.0
TPSRH127B-151	150	0.230	2.80	3.0	1.8	600	0.92	1.40	0.82	0.89
TPSRH127B-181	180	0.255	2.50	2.7	1.7	720	1.020	1.30	0.70	0.84
TPSRH127B-221	220	0.345	2.30	2.5	1.6	880	1.380	1.10	0.64	0.75
TPSRH127B-271	270	0.450	2.10	2.1	1.5	1080	1.80	1.00	0.55	0.71
TPSRH127B-331	330	0.510	1.90	2.0	1.3	1320	2.04	0.92	0.47	0.62
TPSRH127B-391	390	0.560	1.70	1.8	1.1	1560	2.24	0.84	0.41	0.53
TPSRH127B-471	470	0.765	1.60	1.6	0.87	1880	3.06	0.80	0.36	0.43
TPSRH127B-561	560	0.845	1.50	1.5	0.83	2240	3.38	0.73	0.31	0.40
TPSRH127B-681	680	1.145	1.30	1.4	0.76	2720	4.58	0.63	0.30	0.36
TPSRH127B-821	820	1.275	1.20	1.3	0.69	3280	5.10	0.58	0.24	0.33
TPSRH127B-102	1000	1.415	1.10	1.1	0.60	4000	5.66	0.56	0.20	0.30

Remark:

- **DCR is for both windings . DC current at which the inductance drops 30% (typ) from its value without current . Inductance tolerance: 4.7µH～100µH tolerance can be done "M" 120µH～1000µH tolerance can be done "K" .**

Note:

- **Inductance shown for coupled inductor and for two inductors connected in parallel .**
- **Inductance is measured at 100KHz.0.1Vrms.0Adc on an Agilent/HP 4284ALC meter or equivalent .**
- **DCR is for both windings when connected in parallel.DCR for each winding is twice the Value .**
- **SRF measured using Agilent/HP E4991A or equivalent .**
- **Current that causes a 40°C temperature rise from 25°C ambient .**

Order Codes

Order Codes (TPSRH-74B/125B/127B)

TPSRH74B	-	6R8	N

Part Number
TPSRH74B
TPSRH125B
TPSRH127B

Inductance	
2R5	2.50μH
100	10.00μH
101	100.00μH
102	1000.00μH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

Product Introduction

Token (TPSRH) shielded high current inductor is superior to be high Saturation for SMT.

Features :

- Magnerically shielded construction.
- Excellent solderabillity and high heat resistance.
- Various high power inductors are superior to be high Saturation for surface mounting.

Applications :

- Power supply for VCRS; OA equipment Digital camera, LCD television set notebook PC, portable communication Equipments, DC/DC converters, etc.

TPSRH103R, TPSRH104R, and TPSRH105R provide wide inductance range from 1.20μH to 1000.00μH, low direct current resistance (DCR) down to 0.008Ω, and large current up to IDC 10.0A. These devices are directly connected electrode on ferrite core with excellent property and high saturation for surface mounting.

Token enhances SMD wirewound (TPSRH-63R/103R/104R/105R) family inductors covering complete footprint with profile from 1.8 mm to 8.0 mm, inductance from 1.00 μH to 1000.00 μH, low DCR, and Rated Current uo to 8.5A.

Token (TPSRH-63R/103R/104R/105R) with wire wound and magnetically shielded construction offers a variety of characteristics and high performace. Customers can select the optimum characteristics by choosing from footprint, DCR, and a wide range of inductance values and tolerances with some types offering magnetic shielding.

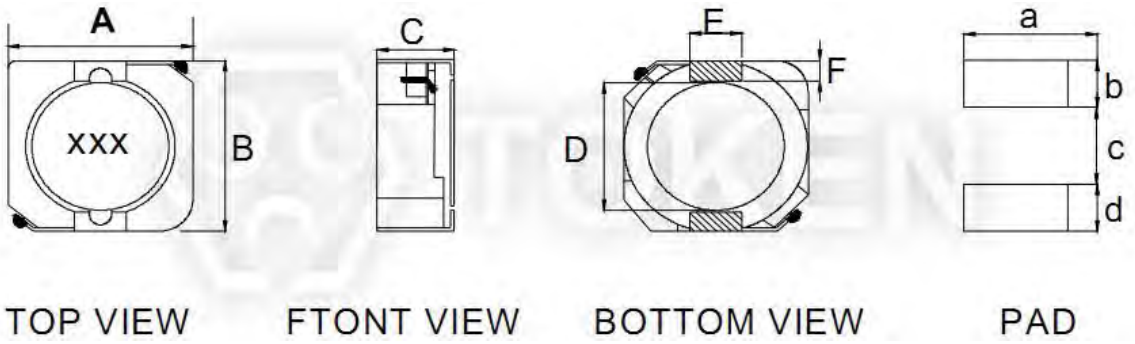
The series is lead-free and RoHS compliant. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements.

Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPSRH-63R/103R/104R/105R)

Type	A±0.3	B±0.3	C (Max)	D (Red)	E (Red)	F (Red)	a (Red)	b (Red)	c (Red)	d (Red)
TPSRH63R	5.9	6.0	3.0	4.7	2.0	0.6	2.6	1.0	4.6	1.0
TPSRH103R	10	10.1	3.0	7.7	3.0	1.2	3.6	1.7	7.3	1.7
TPSRH104R	10	10.1	4.0	7.7	3.0	1.2	3.6	1.7	7.3	1.7
TPSRH105R	10	10.1	5.0	7.7	3.0	1.2	3.6	1.7	7.3	1.7



SMD Shielded High Current Inductors (TPSRH-63R/103R/104R/105R)
Dimensions (Unit: mm)

- **Note: Design as Customer's Requested Specifications.**

TPSRH-63R/103R/104R/105R

Electrical Characteristics (TPSRH-63R/103R/104R/105R)

Inductance (µH)		TPSRH63R		TPSRH103R		TPSRH104R		TPSRH105R	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
1R2	1.2			0.012	4.80	0.016	5.40	0.008	8.50
1R5	1.5							0.008	8.30
2R2	2.2	0.018	2.60	0.018	4.10	0.02	4.95	0.011	7.50
3R3	3.3	0.020	2.30	0.019	3.90	0.025	4.35	0.013	6.50
3R9	3.9			0.022	3.76	0.026	4.05		
4R7	4.7	0.031	1.85	0.030	3.20	0.034	4.00	0.016	4.80
6R8	6.8			0.036	3.10	0.035	3.50	0.024	4.40
8R2	8.2	0.050	1.50	0.039	3.00			0.026	4.05
100	10	0.054	1.30	0.047	2.80	0.045	3.15	0.027	3.45
120	12	0.072	1.2	0.057	2.25	0.059	3.00	0.032	3.40
150	15	0.082	1.10	0.063	2.22	0.072	2.90	0.043	2.83
180	18	0.102	1.05	0.081	1.90	0.077	2.70	0.048	2.62
220	22	0.119	0.95	0.095	1.78	0.086	2.50	0.059	2.44
270	27	0.146	0.85	0.110	1.63	0.104	2.10	0.078	2.24
330	33	0.183	0.76	0.135	1.32	0.133	2.00	0.056	1.88
390	39	0.210	0.68	0.163	1.18	0.148	1.90	0.109	1.70
470	47	0.23	0.60	0.196	1.16	0.174	1.80	0.122	1.56
560	56	0.305	0.55	0.230	1.10	0.216	1.62	0.145	1.39
680	68	0.351	0.48	0.27	1.04	0.299	1.35	0.17	1.36
820	82	0.419	0.45	0.310	0.94	0.325	1.26	0.196	1.20
101	100	0.520	0.40	0.38	0.84	0.403	1.17	0.230	1.09
121	120			0.480	0.76	0.490	1.05	0.298	1.00
151	150			0.560	0.74	0.611	1.00	0.410	0.91
181	180			0.640	0.68	0.660	0.80	0.420	0.84
221	220			0.78	0.66	0.939	0.70	0.500	0.75
271	270			0.960	0.58	1.170	0.60	0.570	0.68
331	330			1.18	0.51	1.30	0.53	0.700	0.60
391	390			1.48	0.49	1.56	0.45	0.68	0.57
471	470			1.82	0.45	1.76	0.40	1.03	0.50
561	560							1.21	0.47
681	680							1.52	0.43
821	820							1.85	0.39
102	1000							2.05	0.35

Note:

- **Measuring Frequency. L:1.0 uH ~82uH(100KHz/0.25v) 100uH Above(1KHz/0.3v).**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt=40°C (ta=20°C).**

Order Codes

Order Codes (TPSRH-63R/103R/104R/105R)

TPSRH63R	-	1R2	-	M

Part Number
TPSRH63R
TPSRH103R
TPSRH104R
TPSRH105R

Inductance	
1R2	1.20μH
100	10.00μH
101	100.00μH
102	1000.00μH

Tolerance	
K	10%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

Product Introduction

Power high-current inductors feature wide inductance range with low DCR low profile.

Features :

- Magnerically shielded construction.
- Excellent solderabillity and high heat resistance.
- Various high power inductors are superior to be high Saturation for surface mounting.

Applications :

- Power supply for VCRS; OA equipment Digital camera, LCD television set notebook PC, portable communication Equipments, DC/DC converters, etc.

Token has unveiled (TPSRH-2D/3D/4D/5D/6D/8D) surface mount low-profile inductor series. Those compact devices feature ultra-low 1.1 mm to maximum 6.0 mm profile, with a wide inductance range and low direct current resistance (DCR).

Token enhances power wirewound inductor (TPSRH-2D/3D/4D/5D/6D/8D) family series covering complete footprint and inductance from 1.00 µH to 180.00 µH, low DCR, and Rated Current uo to 7.0A.

Token (TPSRH-2D/3D/4D/5D/6D/8D) with wire wound and magnetically shielded construction offers a variety of characteristics and high performace. Customers can select the optimum characteristics by choosing from footprint, DCR, and a wide range of inductance values and tolerances with some types offering magnetic shielding.

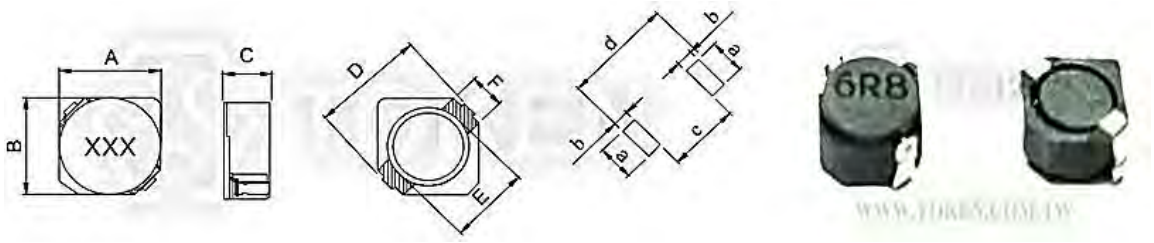
The series is lead-free and RoHS compliant. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements.

Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

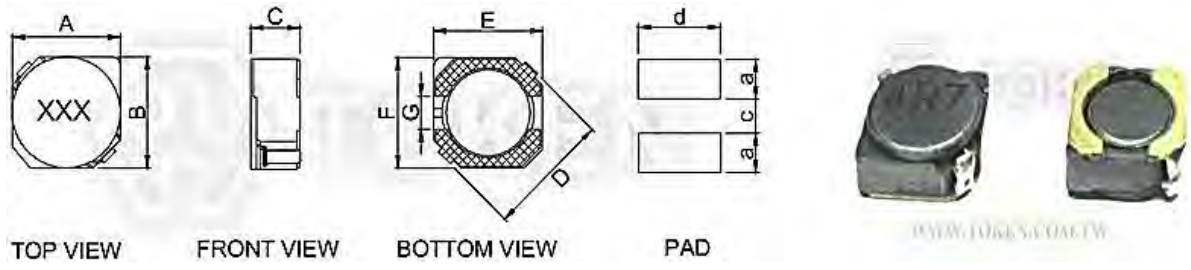
Dimensions & Configurations (Unit: mm) (TPSRH-2D11~3D14)

RART NO	A±0.3	B±0.3	C±0.3	D (Ref)	E (Ref)	F (Ref)	G (Ref)
TPSRH2D11	2.9	2.9	1.1	4.2	2.1	1.0	
TPSRH2D14	2.9	1.3	4.2	2.1	1.0	1.3	
TPSRH2D16	2.9	2.9	1.8	4.2	2.1	1.0	
TPSRH2D18	2.9	2.9	1.8	4.2	2.1	1.0	
TPSRH3D14	3.7	3.7	1.6	5.2	2.8	1.1	



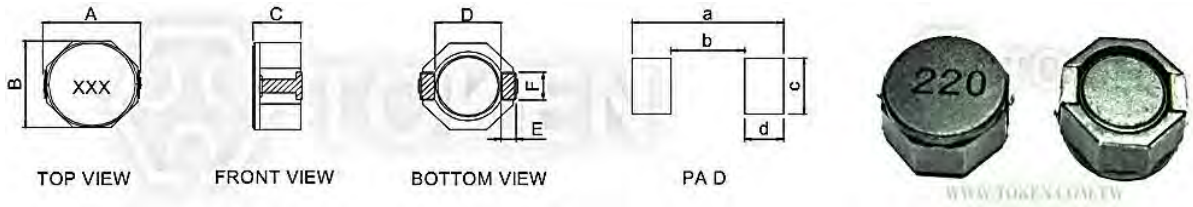
Dimensions & Configurations (Unit: mm) (TPSRH-3D16~6D38)

RART NO	A±0.3	B±0.3	C (Max)	D (Max)	E (Red)	G (Red)	a	b	c	d
TPSRH3D16	3.9	3.9	2.0	5.6	3.5	1	1.6	1.6	1.4	4.6
TPSRH3D18	3.9	3.9	2.1	5.6	3.7	1	1.6	1.6	1.4	4.6
TPSRH3D28	3.9	3.9	3.2	5.6	3.7	1	1.6	1.6	1.4	4.6
TPSRH4D18	4.9	4.9	2.0	6.9	4.5	1.5	1.9	1.9	1.5	5.3
TPSRH4D28	4.9	4.9	3.0	6.9	4.5	1.5	1.9	1.9	1.5	5.3
TPSRH5D18	5.9	5.9	2.0	8.2	5.5	2.0	2.15	2.15	2.0	6.3
TPSRH5D28	5.9	5.9	3.0	8.2	5.5	2.0	2.15	2.15	2.0	6.3
TPSRH6D28	6.9	6.9	3.0	9.5	6.5	2.0	2.65	2.65	2.0	7.0
TPSRH6D38	6.9	6.9	4.0	9.5	6.5	2.0	2.65	2.65	2.0	7.3



Dimensions & Configurations (Unit: mm) (TPSRH-8D28~8D58)

RART NO	A±0.3	B±0.3	C (Max)	D (Red)	E (Red)	F (Red)	a (Red)	b (Red)	c (Red)	d (Red)
TPSRH8D28	8	8	3.0	6.3	1.2	2.5	10.1	6.1	2.8	2.0
TPSRH8D38	8	8	4.0	6.3	1.2	2.5	10.1	6.1	2.8	2.0
TPSRH8D43	8	8	4.5	6.3	1.2	2.5	10.1	6.1	2.8	2.0
TPSRH8D58	8	8	6.0	6.3	1.2	2.5	10.1	6.1	2.8	2.0



TPSRH2D/TPSRH3D

Electrical Characteristics (TPSRH2D/TPSRH3D)

Inductance (µH)		TPSRH2D11		TPSRH2D14		TPSRH2D16		TPSRH2D18		TPSRH3D14	
Marking	L (µH)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)
1R2	1.2	0.056	1.000	0.057	2.00					0.045	2.150
1R5	1.5	0.068	0.900	0.073	1.800						
1R8	1.8			0.075	1.650						
2R2	2.2	0.098	0.780	0.094	1.550	0.047	0.860	0.041	0.850	0.069	1.600
2R5	2.5	0.103	0.700								
2R7	2.7			0.117	1.350	0.061	0.820			0.088	1.450
3R3	3.3	0.130	0.630			0.067	0.720	0.054	0.750	0.100	1.350
4R7	4.7	0.177	0.500	0.222	1.000	0.101	0.620	0.078	0.630	0.150	1.100
5R6	5.6	0.187	0.500	0.240	0.950	0.123	0.570				
6R8	6.8	0.27	0.450	0.330	0.850	0.158	0.500	0.106	0.520		
8R2	8.2	0.300	0.400	0.350	0.800	0.171	0.450			0.238	0.820
100	10	0.400	0.430	0.400	0.700	0.195	0.420	0.180	0.430	0.262	0.750
120	12			0.394	0.620	0.223	0.390			0.350	0.670
150	15					0.248	0.350	0.220	0.350	0.488	0.600
180	18					0.316	0.320				
220	22					0.418	0.280	0.320	0.300	0.575	0.520
270	27					0.466	0.260				
330	33							0.460	0.240		
470	47							0.660	0.200		

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

TPSRH3D/TPSRH4D

Electrical Characteristics (TPSRH3D/TPSRH4D)

Inductance (µH)		TPSRH3D16		TPSRH3D18		TPSRH3D28		TPSRH4D18		TPSRH4D28	
Marking	L (µH)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)
1R0	1.0	0.03	2.00	0.056	2.50					0.027	2.70
1R2	1.2							0.027	1.68	0.024	2.56
1R5	1.5	0.04	1.60	0.073	2.30			0.034	1.65	0.030	2.46
1R8	1.8	0.046	1.4	0.083	2.00					0.031	2.2
2R2	2.2	0.054	1.30	0.096	1.90			0.043	1.32	0.035	2.04
2R7	2.7	0.069	1.10	0.124	1.70			0.055	1.28	0.038	1.80
3R3	3.3	0.075	1.00	0.127	1.50	0.072	2.00	0.066	1.01	0.043	1.57
3R9	3.9	0.090	0.90	0.162	1.40			0.074	0.88	0.059	1.44
4R7	4.7	0.112	0.85	0.188	1.35	0.088	1.65	0.089	0.845	0.062	1.32
5R6	5.6	0.118	0.800	0.230	1.2			0.118	0.80	0.074	1.17
6R8	6.8	0.141	0.700	0.270	1.10	0.119	1.24	0.143	0.76	0.087	1.12
8R2	8.2	0.184	0.650					0.155	0.68	0.10	1.04
100	10	0.230	0.600	0.390	0.90	0.145	1.05	0.179	0.61	0.125	1.00
120	12	0.250	0.540	0.400	0.800			0.216	0.56	0.136	0.84
150	15	0.310	0.500	0.480	0.75	0.213	0.90	0.240	0.50	0.173	0.76
180	18	0.380	0.420	0.530	0.65			0.338	0.48	0.208	0.72
220	22	0.500	0.380	0.74	0.70	0.335	0.76	0.397	0.41	0.222	0.70
270	27	0.570	0.350	0.810	0.500			0.441	0.35	0.261	0.58
330	33	0.750	0.300	1.090	0.45	0.481	0.58	0.570	0.32	0.331	0.56
390	39			1.190	0.40			0.709	0.30	0.384	0.50
470	47			1.680	0.35	0.599	0.48	0.78	0.28	0.380	0.48
560	56							0.970	0.26	0.480	0.41
680	68							1.30	0.22	0.66	0.35
820	82							1.35	0.22	0.66	0.41
101	100							0.970	0.26	0.480	0.41
121	120							1.95	0.18	0.950	0.27
151	150							2.12	0.15	0.180	0.41
181	180							2.50	0.14	1.330	0.22

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

TPSRH5D/TPSRH6D

Electrical Characteristics (TPSRH5D/TPSRH6D)

Inductance (μH)		TPSRH5D18		TPSRH5D28		TPSRH6D28		TPSRH6D38	
Marking	L (μH)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)
2R7	2.7			0.033	2.60				
3R0	3.0	0.053	0.230			0.024	3.00		
3R3	3.3			0.035	2.30			0.026	3.5
3R9	3.9	0.065	2.0	0.044	2.2	0.027	2.60	0.028	3.00
4R1	4.1	0.077	1.95						
6R8	6.8	0.109	1.50					0.039	2.30
8R2	8.2			0.069	1.60				
100	10	0.139	1.20	0.091	1.30	0.065	1.70	0.053	2.00
120	12	0.195	1.10	0.098	1.20	0.070	1.55	0.060	1.70
150	15	0.220	0.97	0.115	1.10	0.084	1.40	0.073	1.60
180	18	0.270	0.85	0.138	1.00	0.095	1.32	0.086	1.50
220	22	0.350	0.80	0.160	0.90	0.128	1.20	0.099	1.30
270	27	0.380	0.75	0.203	0.85	0.142	1.05	0.117	1.2
330	33	0.480	0.65	0.238	0.75	0.165	0.97	0.146	1.10
390	39	0.60	0.57	0.270	0.70	0.210	0.86	0.187	1.00
470	47	0.70	0.54	0.330	0.62	0.238	0.80	0.217	0.95
560	56	0.84	0.50	0.400	0.58	0.277	0.73	0.230	0.85
680	68	0.95	0.43	0.510	0.50	0.304	0.65	0.270	0.75
820	82	1.24	0.41	0.570	0.46	0.390	0.60	0.330	0.70
101	100	1.34	0.36	0.69	0.42	0.535	0.54	0.420	0.65

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt = 40°C (ta = 20°C).**

TPSRH8D

Electrical Characteristics (TPSRH8D)

Inductance (μH)		TPSRH8D28		TPSRH8D38		TPSRH8D43		TPSRH8D58	
Marking	L (μH)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)	DCR (Ω)Max.	IDC (A)
1R8	1.8			0.015	7.00				
2R0	2.0	0.22	5.00			0.22	7.00		
2R5	2.5	0.024	4.5	0.017	6.50				
3R3	3.3					0.027	6.00		
3R5	3.5	0.031	4.00	0.024	5.00				
3R9	3.9					0.030	4.50	0.016	4.10
4R7	4.7	0.040	3.40	0.029	4.60	0.033	4.30		
5R0	5.0							0.017	3.80
6R2	6.2	0.049	3.00			0.036	4.00	0.02	3.30
6R8	6.8					0.045	4.40		
7R3	7.3	0.060	2.80						
100	10	0.079	2.50	0.048	3.00	0.059	3.08	0.026	2.6
150	15	0.109	1.90	0.067	2.75	0.083	2.24	0.037	2.30
220	22	0.157	1.60	0.105	2.30	0.118	2.00	0.046	1.70
330	33	0.205	1.30	0.157	1.75	0.160	1.50	0.065	1.50
470	47	0.310	1.15	0.189	1.52	0.230	1.33	0.091	1.20
680	68	0.430	0.92	0.290	1.30	0.280	1.12	0.13	1.00
101	100	0.56	0.75	0.410	1.05	0.440	0.91	0.18	0.80

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Order Codes

Order Codes (TPSRH-2D/3D/4D/5D/6D/8D)

TPSRH2D11	-	1R2	N

Part Number		
TPSRH2D11	TPSRH3D28	TPSRH8D28
TPSRH2D14	TPSRH4D18	TPSRH8D38
TPSRH2D16	TPSRH4D28	TPSRH8D43
TPSRH2D18	TPSRH5D18	TPSRH8D58
TPSRH3D14	TPSRH5D28	TPSRH3D18
TPSRH3D16	TPSRH6D28	TPSRH6D38

Inductance	
1R2	1.20µH
100	10.00µH
470	47.00µH
102	100.00µH

Tolerance	
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSLF) Low DCR High Saturation Power Inductors

Product Introduction

Token (TPSLF) Shielded Small Footprint SMD Power Inductors Deliver Higher Inductances.

Features :

- Magnerically shielded construction.
- Excellent solderabillity and high heat resistance.
- Superior to be High Saturation for surface mounting.

Applications :

- Power supply for VCRS; OA equipment Digital camera, LCD television set notebook PC, portable communication Equipments, DC/DC converters, etc..

Token (TPSLF) inductors are a strong choice for high-density power circuitry. With ferrite drum construction and a unique geometry. (TPSLF) also feature magnetically shielded, composite construction that reduces buzz noise to ultra-low levels.

Token offers high saturation power inductor 0.01Ω low DCR value and has once again extended its (TPSLF) family of low-profile, wire wound, high-current inductors with a new device that offers the lowest direct current resistance (DCR) available in a compact (5.9mm x 5.9mm), (6.9mm x 6.9mm), (10.1mm x 10.1mm), (12.5mm x 12.5mm) package with a low 2.7mm, 3.0mm, 3.2mm, 3.4mm, 4.8mm, 5.8mm, 6.8mm, and 7.8mm height profile.

The (TPSLF) series is a high-performance, space-saving and power-saving solution for DC-DC converter applications for products such as Game machine, HDD, Notebook PC, Projector, PDA, mobile devices, notebook computers, desktop computers, and servers. Other applications include low-profile, and high-current power supplies.

The (TPSLF) inductors are RoHS compliant and meet standard requirements. Token will also produce devices outside these specifications to meet specific customer requirements and custom parts are available on request.Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPSLF)

PART NO	FIG	A ± 0.3	B ± 0.3	C ± 0.3	D (Ref)	E (Ref)	F (Ref)	a	b = d	c
TPSLF6025	1	5.9	5.9	2.7	0.1	0.9	2	2.2	1.5	4
TPSLF6028	1	5.9	5.9	3.0	0.1	0.9	2	2.2	1.5	4
TPSLF7028	1	6.9	6.9	3.0	0.1	0.9	2	2.2	1.5	4.9
TPSLF7030	1	6.9	6.9	3.2	0.1	0.9	2	2.2	1.5	4.9
TPSLF7032	1	6.9	6.9	3.4	0.1	0.9	2	2.2	1.5	4.9
TPSLF7045	1	6.9	6.9	4.8	0.1	0.9	2	2.2	1.5	4.9
TPSLF1045	1	10.1	10.1	4.8	0.15	2.0	3	3.2	2.5	5.6
TPSLF1205	1/2	12.5	12.5	5.8	0.1	2.0	3	3.2	2.5	8.6
TPSLF1206	1/2	12.5	12.5	6.8	0.1	2.0	3	3.2	2.5	8.6
TPSLF1207	1/2	12.5	12.5	7.8	0.1	2.0	3	3.2	2.5	8.6

FIG1

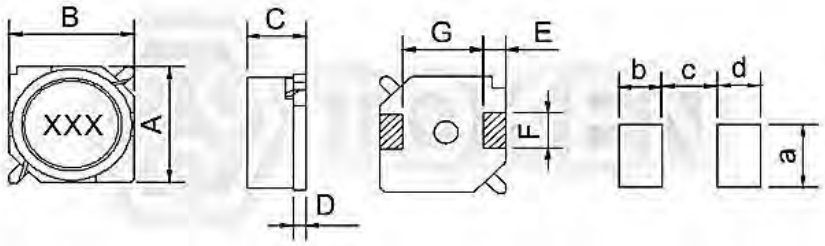
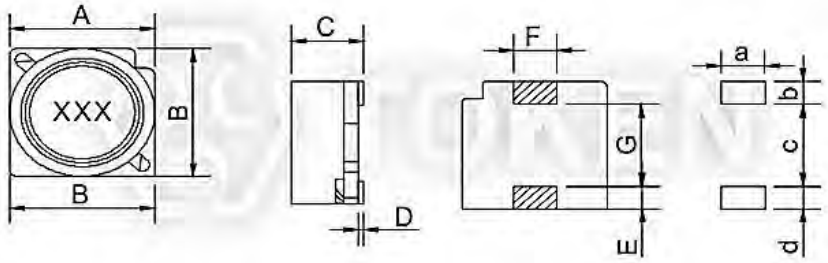


FIG2



- **Note: Design as Customer's Requested Specifications.**

TPSLF6025/6028/7028/7030/7032

Electrical Characteristics (TPSLF)

Inductance (µH)		TPSLF6025		TPSLF6028		TPSLF7028		TPSLF7030		TPSLF7032	
Marking	L (µH)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)
3R3	3.3					0.028	1.60	0.023	1.80	0.023	1.90
4R7	4.7	0.036	1.50	0.028	1.60	0.038	1.50	0.036	1.60	0.030	1.70
6R8	6.8	0.044	1.30	0.036	1.50	0.059	1.30	0.041	1.50	0.041	1.60
100	10	0.057	1.00	0.054	1.30	0.083	1.10	0.053	1.30	0.053	1.40
150	15	0.085	0.88	0.076	1.00	0.110	0.88	0.084	1.00	0.075	1.10
220	22	0.122	0.73	0.104	0.77	0.180	0.75	0.110	0.86	0.110	0.96
330	33	0.180	0.59	0.148	0.69	0.240	0.65	0.160	0.65	0.160	0.75
470	47	0.240	0.48	0.210	0.59	0.340	0.54	0.240	0.57	0.240	0.67
680	68	0.370	0.42	0.290	0.50			0.310	0.49	0.310	0.59
101	100	0.500	0.33	0.430	0.42			0.450	0.35	0.45	0.45
151	150			0.650	0.34					0.650	0.37
221	220			0.980	0.26					1.050	0.29
471	470									2.050	0.20
681	680									3.150	0.16

Note:

- **Measuring Frequency. L:<100µH(100KHz/0.25v) L:>100µH Above(1KHz/0.25v).**
- **IDC: The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

TPSLF7045/1045/1205/1206/1207

Electrical Characteristics (TPSLF)

Inductance (µH)		TPSLF7045		TPSLF1045		TPSLF1205		TPSLF1206		TPSLF1207	
Marking	L (µH)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)	DCR (Ω) Max	IDC (A)
2R7	2.7									0.010	10
3R3	3.3	0.020	2.50	0.016	4.90						
4R7	4.7	0.030	2.00								
5R6	5.6			0.022	3.80					0.012	7.8
6R8	6.8	0.036	1.70							0.014	7.2
100	10	0.039	1.30	0.037	3.00	0.025	3.40	0.021	5.00	0.016	5.5
150	15	0.052	1.10	0.043	2.40	0.026	2.80	0.024	4.2	0.019	4.7
220	22	0.061	0.90	0.060	2.10	0.031	2.30	0.032	3.50	0.027	4.0
330	33	0.096	0.82	0.082	1.60	0.042	1.90	0.041	2.80	0.040	3.2
470	47	0.125	0.75	0.100	1.40	0.062	1.60	0.058	2.40	0.053	2.7
680	68	0.175	0.60	1.40	1.20	0.084	1.30	0.079	2.00	0.078	2.0
101	100	0.25	0.50	0.200	1.00	0.117	1.10	0.123	160	0.125	1.9
151	150	0.340	0.40	0.350	0.79	0.190	0.88			0.175	1.5
221	220	0.520	0.33	0.470	0.65	0.270	0.72	0.273	1.00	0.258	1.3
471	470	1.05	0.22	1.03	0.47	0.520	0.49				
681	680	1.48	0.20	1.60	0.38	0.760	0.43				
102	1000	2.28	0.14	2.80	0.32	1.120	0.34				
152	1500			3.40	0.22	1.730	0.29				

Note:

- **Measuring Frequency. L:<100µH(100KHz/0.25v) L:>100µH Above(1KHz/0.25v).**
- **IDC: The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt = 40°C (ta = 20°C).**

Order Codes

Order Codes (TPSLF)

TPSLF6025	-	3R3	M

Part Number
TPSLF6025
TPSLF6028
TPSLF7028
TPSLF7030
TPSLF7032
TPSLF7045
TPSLF1045
TPSLF1205
TPSLF1206
TPSLF1207

Inductance	
3R3	3.30µH
120	12.00µH
101	100.00µH
102	1000.00µH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

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Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSME) Miniature Low Profile Power Inductors

Product Introduction

Token (TPSME) Miniature Low Profile Power Inductor for new generation portable products.

Features :

- Low Profile: 1.0mm ~ 4.5mm.
- Excellent solderability and high heat resistance.
- High current (rated current): 0.34 to 15.0 amperes.

Applications :

- DC-DC converters, DVD, DSC, phone, PDA, GPS, CMMB, Digital photo Frame, telephone, CAR AV equipment.

Token Electronics has added new ranges of low-profile wire wound chip inductors, TPSME201610, TPSME252010, TPSME252012,TPSME3010, TPSME3012, TPSME3015, TPSME4012, TPSME4018, TPSME4030, TPSME5020, TPSME6045, and TPSME8040, for use in DC-DC converter applications to increase flexibility of maximum height measurements with extended electrical characteristics.

The new TPSME series is designed to provide a good balance of height and performance within chip power miniature inductor offering. The TPSME201610, TPSME252010, and TPSME3010 Series were developed to have a low profile height of 1.0mm. The TPSME252012, TPSME3012, and TPSME4012 Series were developed to have a medium range maximum height of 1.2mm. Those TPSME family enables flexibility and efficiency.

All TPSME winding chip coils of inductors offer low DC resistance and large rated current. This is vital for DC-DC converter applications as it prevents energy dissipation from the chip inductor, improving the converter's overall efficiency.

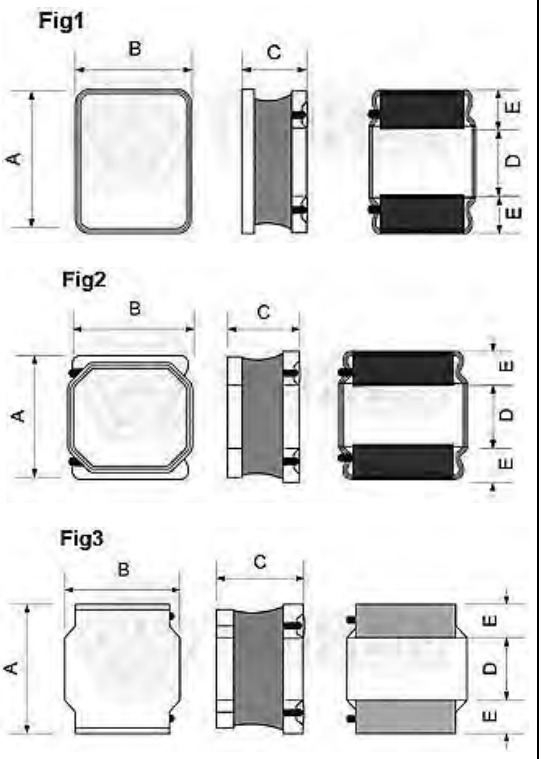
The new ranges deliver a good size/performance ratio with low DC resistances of 0.010ohm (TPSME6045) and 0.025ohm (TPSME252012). A wide range of inductances is also available from 0.24µH to 330µH. The parts come with high rated currents, up to 15A, and feature magnetic shielding as standard. Operating temperature range is -55°C to +125°C.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPSME)

Series	Dimensions (mm)					
	A	B	C Max.	D Ref.	E Ref.	Fig
201610	2.0 ± 0.2	1.6 ± 0.2	1.0	0.6	0.6	Fig1/Fig2
252010	2.5 ± 0.2	2.0 ± 0.2	1.0	0.8	0.8	Fig1
252012	2.5 ± 0.2	2.0 ± 0.2	1.2	0.8	0.8	Fig1
3010	3.0 ± 0.2	3.0 ± 0.2	1.0	1.5	0.75	Fig2
3012	3.0 ± 0.2	3.0 ± 0.2	1.2	1.5	0.75	Fig2
3015	3.0 ± 0.2	3.0 ± 0.2	1.5	1.5	0.75	Fig2
4012	4.0 ± 0.2	4.0 ± 0.2	1.2	2.1	0.95	Fig2
4018	4.0 ± 0.2	4.0 ± 0.2	1.8	2.1	0.95	Fig3
4030	4.0 ± 0.2	4.0 ± 0.2	3.0	2.1	0.95	Fig3
5020	5.0 ± 0.2	5.0 ± 0.2	2.0	2.4	1.30	Fig3
5040	5.0 ± 0.2	5.0 ± 0.2	4.0	2.4	1.30	Fig2
6045	6.0 ± 0.2	6.0 ± 0.2	4.5	2.9	0.95	Fig3
8040	8.0 ± 0.2	8.0 ± 0.2	4.0	4.0	1.6	Fig2/Fig3



201610

Electrical Specification (TPSME201610)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME201610-R24M	0.24	20	0.034	3.80	3.80
TPSME201610-R33M	0.33	20	0.052	3.70	3.50
TPSME201610-R47M	0.47	20	0.059	2.90	2.50
TPSME201610-R68M	0.68	20	0.078	2.20	2.40
TPSME201610-1R0M	1.00	20	0.104	1.90	2.00
TPSME201610-2R2M	2.20	20	0.120	1.00	1.40
TPSME201610-4R7M	4.70	20	0.396	0.90	1.00
TPSME201610-100M	10.00	20	0.956	0.70	0.70

Electrical Specification (TPSME201610 H Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME201610HR24M	0.24	20	0.032	4.20	4.30
TPSME201610HR33M	0.33	20	0.041	3.80	3.80
TPSME201610HR47M	0.47	20	0.059	2.90	2.50
TPSME201610HR68M	0.68	20	0.078	2.20	2.40
TPSME201610H1R0M	1.00	20	0.072	2.00	2.25
TPSME201610H2R2M	2.20	20	0.215	1.35	1.40
TPSME201610H4R7M	4.70	20	0.420	1.00	1.00
TPSME201610H100M	10.00	20	0.820	0.65	0.70

Electrical Specification (TPSME201610 E Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME201610ER24M	0.24	20	0.032	4.85	4.30
TPSME201610ER47M	0.47	20	0.042	3.60	3.00
TPSME201610ER68M	0.68	20	0.058	3.00	3.00
TPSME201610E1R0M	1.00	20	0.070	2.20	2.60
TPSME201610E1R5M	1.50	20	0.120	1.70	2.00
TPSME201610E2R2M	2.20	20	0.150	1.60	1.60

Electrical Specification (TPSME201610 A Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME201610AR24M	0.24	20	0.032	5.50	4.30
TPSME201610AR33M	0.33	20	0.032	4.60	3.80
TPSME201610AR47M	0.47	20	0.042	4.40	3.50
TPSME201610AR68M	0.68	20	0.057	3.40	3.00
TPSME201610A1R0M	1.00	20	0.090	3.15	2.40
TPSME201610A1R5M	1.50	20	0.130	2.20	2.00
TPSME201610A2R2M	2.20	20	0.165	2.10	1.45

Electrical Specification (TPSME201610 IH Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME201610IHR24M	0.24	20	0.026	7.00	4.50
TPSME201610IHR33M	0.33	20	0.029	6.00	4.00
TPSME201610IHR47M	0.47	20	0.036	4.50	3.80
TPSME201610IHR68M	0.68	20	0.050	4.00	3.10
TPSME201610IH1R0M	1.00	20	0.072	3.40	2.85
TPSME201610IH1R5M	1.50	20	0.120	2.20	2.10
TPSME201610IH2R2M	2.20	20	0.155	2.20	1.70

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME201610 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

252010

Electrical Specification (TPSME252010)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252010-R47M	0.47	20	0.056	3.40	2.70
TPSME252010-R68M	0.68	20	0.056	2.90	2.70
TPSME252010-1R0M	1.00	20	0.078	2.55	2.30
TPSME252010-2R2M	2.20	20	0.186	1.70	1.65
TPSME252010-3R3M	3.30	20	0.300	1.30	1.45
TPSME252010-4R7M	4.70	20	0.456	1.20	0.90
TPSME252010-6R8M	6.80	20	0.540	1.00	0.85
TPSME252010-100M	10.00	20	0.660	0.90	0.70
TPSME252010-220M	22.00	20	1.600	0.60	0.55
TPSME252010-470M	47.00	20	2.400	0.35	0.35

Electrical Specification (TPSME252010 H Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252010HR47M	0.47	20	0.042	3.60	3.50
TPSME252010HR68M	0.68	20	0.058	3.20	3.20
TPSME252010H1R0M	1.00	20	0.072	2.70	2.70
TPSME252010H2R2M	2.20	20	0.142	1.70	1.75
TPSME252010H3R3M	3.30	20	1.50	1.50	1.25

Electrical Specification (TPSME252010 E Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252010ER24M	0.24	20	0.030	5.50	4.30
TPSME252010ER33M	0.33	20	0.038	4.05	3.90
TPSME252010ER47M	0.47	20	0.038	3.90	3.90
TPSME252010ER68M	0.68	20	0.053	3.50	3.20
TPSME252010E1R0M	1.00	20	0.072	2.60	2.60
TPSME252010E1R5M	1.50	20	0.103	2.20	2.10
TPSME252010E2R2M	2.20	20	0.155	1.90	1.90
TPSME252010E3R3M	3.30	20	0.210	1.60	1.50
TPSME252010E4R7M	4.70	20	0.318	1.30	1.20
TPSME252010E6R8M	6.80	20	0.470	0.10	1.10
TPSME252010E100M	10.00	20	0.600	0.80	0.80

Electrical Specification (TPSME252010 A Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252010AR24M	0.24	20	0.030	6.55	4.20
TPSME252010AR33M	0.33	20	0.026	6.50	5.00
TPSME252010AR47M	0.47	20	0.038	5.50	4.00
TPSME252010AR68M	0.68	20	0.050	4.15	3.90
TPSME252010A1R0M	1.00	20	0.065	3.55	3.00
TPSME252010A1R5M	1.50	20	0.100	3.00	2.35
TPSME252010A2R2M	2.20	20	0.130	2.30	2.00
TPSME252010A4R7M	4.70	20	0.310	1.60	1.35

Electrical Specification (TPSME252010 IH Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252010IHR24M	0.24	20	0.018	8.90	6.50
TPSME252010IHR33M	0.33	20	0.024	7.50	5.50
TPSME252010IHR47M	0.47	20	0.030	6.50	4.70
TPSME252010IHR68M	0.68	20	0.040	5.60	4.20
TPSME252010IH1R0M	1.00	20	0.053	4.60	4.00
TPSME252010IH1R5M	1.50	20	0.075	3.80	3.30
TPSME252010IH2R2M	2.20	20	0.097	3.00	2.70
TPSME252010IH4R7M	4.70	20	0.250	1.70	1.50

Electrical Specification (TPSME252010 AH Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252010AHR24M	0.24	20	0.027	7.10	4.60
TPSME252010AHR33M	0.33	20	0.027	5.30	4.40
TPSME252010AHR47M	0.47	20	0.035	6.00	4.50
TPSME252010AHR68M	0.68	20	0.045	4.70	4.00
TPSME252010AH1R0M	1.00	20	0.060	3.70	3.50
TPSME252010AH1R5M	1.50	20	0.085	3.00	2.90
TPSME252010AH2R2M	2.20	20	0.110	2.50	2.40
TPSME252010AH4R7M	4.70	20	0.276	1.70	1.35

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME252010 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

252012

Electrical Specification (TPSME252012)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252012-R47M	0.47	20	0.035	3.80	3.00
TPSME252012-R68M	0.68	20	0.048	3.00	2.50
TPSME252012-1R0M	1.00	20	0.065	2.60	2.43
TPSME252012-1R5M	1.50	20	0.088	1.80	1.95
TPSME252012-2R2M	2.20	20	0.144	1.55	1.70
TPSME252012-3R3M	3.30	20	0.174	1.30	1.35
TPSME252012-4R7M	4.70	20	0.252	1.25	1.12
TPSME252012-6R8M	6.80	20	0.360	0.90	0.85
TPSME252012-100M	10.00	20	0.600	0.75	0.70
TPSME252012-220M	22.00	20	1.150	0.50	0.50

Electrical Specification (TPSME252012 H Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252012HR33M	0.33	20	0.030	5.05	5.25
TPSME252012HR47M	0.47	20	0.032	4.50	3.75
TPSME252012HR68M	0.68	20	0.042	3.90	3.50
TPSME252012H1R0M	1.00	20	0.056	3.00	3.50
TPSME252012H2R2M	2.20	20	0.100	1.90	2.20
TPSME252012H3R3M	3.30	20	0.144	1.70	1.60
TPSME252012H4R7M	4.70	20	0.216	1.40	1.35
TPSME252012H6R8M	6.80	20	0.300	1.20	1.05
TPSME252012H100M	10.00	20	0.462	1.00	0.90

Electrical Specification (TPSME252012 E Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252012ER24M	0.24	20	0.025	5.00	4.30
TPSME252012ER47M	0.47	20	0.038	5.00	3.75
TPSME252012ER68M	0.68	20	0.045	4.10	3.60
TPSME252012E1R0M	1.00	20	0.054	3.50	3.50
TPSME252012E1R5M	1.50	20	0.072	2.50	2.25
TPSME252012E2R2M	2.20	20	0.105	2.30	2.40

Electrical Specification (TPSME252012 I Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME252012IR24M	0.24	20	0.025	5.00	4.30
TPSME252012IR47M	0.47	20	0.035	6.00	3.80
TPSME252012IR68M	0.68	20	0.045	4.80	3.80
TPSME252012I1R0M	1.00	20	0.057	4.00	3.60
TPSME252012I1R5M	1.50	20	0.095	4.00	3.00
TPSME252012I2R2M	2.20	20	0.100	3.00	2.40

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME252012 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

3010

Electrical Specification (TPSME3010)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME3010-R56M	0.56	20	0.048	2.80	2.15
TPSME3010-R68M	0.68	20	0.048	2.50	2.15
TPSME3010-1R0M	1.00	20	0.066	2.15	2.00
TPSME3010-1R5M	1.50	20	0.078	1.65	1.70
TPSME3010-2R2M	2.20	20	0.096	1.35	1.55
TPSME3010-3R3M	3.30	20	0.145	1.20	1.25
TPSME3010-4R7M	4.70	20	0.222	1.10	1.05
TPSME3010-6R8M	6.80	20	0.330	0.85	0.70
TPSME3010-8R2M	8.20	20	0.348	0.80	0.80
TPSME3010-100M	10.00	20	0.480	0.70	0.70
TPSME3010-150M	15.00	20	0.624	0.60	0.60
TPSME3010-220M	22.00	20	1.000	0.50	0.50
TPSME3010-330M	10.00	20	0.480	0.70	0.70

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME3010 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

3012

Electrical Specification (TPSME3012)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME3012-R82M	0.82	20	0.039	2.60	3.30
TPSME3012-1R0M	1.00	20	0.048	2.50	3.30
TPSME3012-1R2M	1.20	20	0.048	2.15	2.60
TPSME3012-1R5M	1.50	20	0.060	2.10	2.30
TPSME3012-2R2M	2.20	20	0.075	1.65	2.10
TPSME3012-3R3M	3.30	20	0.108	1.45	1.70
TPSME3012-4R7M	4.70	20	0.144	1.15	1.50
TPSME3012-6R8M	6.80	20	0.210	1.05	1.15
TPSME3012-100M	10.00	20	0.312	0.75	1.00
TPSME3012-150M	15.00	20	0.420	0.60	0.85
TPSME3012-180M	18.00	20	0.576	0.60	0.78
TPSME3012-220M	22.00	20	0.588	0.50	0.75
TPSME3012-330M	33.00	20	0.960	0.47	0.55
TPSME3012-470M	47.00	20	1.560	0.45	0.45

Electrical Specification (TPSME3012 I Series)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME3012I1R0M	1.00	20	0.055	6.00	3.10
TPSME3012I2R2M	2.20	20	0.108	3.35	2.35
TPSME3012I4R7M	4.70	20	0.235	2.50	1.50
TPSME3012B100M	10.00	20	0.415	1.10	0.90
TPSME3012B220M	22.00	20	0.800	0.75	0.70

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME3012 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

3015

Electrical Specification (TPSME3015)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME3015-1R0M	1.00	20	0.040	2.80	2.85
TPSME3015-1R2M	1.20	20	0.048	2.80	2.65
TPSME3015-1R5M	1.50	20	0.055	2.75	2.60
TPSME3015-2R2M	2.20	20	0.072	2.10	2.25
TPSME3015-3R3M	3.30	20	0.102	1.75	1.85
TPSME3015-3R9M	3.90	20	0.132	1.50	1.70
TPSME3015-4R7M	4.70	20	0.145	1.45	1.50
TPSME3015-5R6M	5.60	20	0.156	1.20	1.50
TPSME3015-6R8M	6.80	20	0.200	1.15	1.30
TPSME3015-8R2M	8.20	20	0.228	1.05	1.20
TPSME3015-100M	10.00	20	0.300	1.10	1.05
TPSME3015-120M	12.00	20	0.300	0.85	1.05
TPSME3015-150M	15.00	20	0.420	0.80	0.95
TPSME3015-220M	22.00	20	0.545	0.65	0.85
TPSME3015-330M	33.00	20	0.852	0.50	0.65
TPSME3015-470M	47.00	20	1.200	0.45	0.55
TPSME3015-680M	68.00	20	2.400	0.34	0.40

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME3015 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

4012

Electrical Specification (TPSME4012)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME4012-R82M	0.82	20	0.065	3.65	2.20
TPSME4012-1R0M	1.00	20	0.065	3.20	2.20
TPSME4012-1R5M	1.50	20	0.078	2.50	2.00
TPSME4012-2R2M	2.20	20	0.104	2.10	2.10
TPSME4012-3R3M	3.30	20	0.143	1.95	1.70
TPSME4012-4R7M	4.70	20	0.182	1.55	1.50
TPSME4012-5R6M	5.60	20	0.215	1.60	1.35
TPSME4012-6R8M	6.80	20	0.257	1.40	1.30
TPSME4012-100M	10.00	20	0.312	1.05	1.05
TPSME4012-150M	15.00	20	0.494	0.90	0.90
TPSME4012-220M	22.00	20	0.741	0.70	0.75
TPSME4012-470M	47.00	20	1.760	0.45	0.45
TPSME4012-101M	100.00	20	3.600	0.35	0.30

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME4012 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

4018

Electrical Specification (TPSME4018)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME4018-1R0M	1.00	20	0.030	4.85	3.80
TPSME4018-1R2M	1.20	20	0.030	4.80	3.80
TPSME4018-1R5M	1.50	20	0.036	4.25	3.20
TPSME4018-2R2M	2.20	20	0.048	3.40	2.90
TPSME4018-3R3M	3.30	20	0.060	3.00	2.50
TPSME4018-3R9M	3.90	20	0.078	2.80	2.20
TPSME4018-4R7M	4.70	20	0.078	2.30	2.20
TPSME4018-6R8M	6.80	20	0.108	1.85	1.90
TPSME4018-100M	10.00	20	0.168	1.55	1.30
TPSME4018-150M	15.00	20	0.228	1.25	1.20
TPSME4018-220M	22.00	20	0.336	1.10	1.10
TPSME4018-330M	33.00	20	0.480	0.90	0.85
TPSME4018-470M	47.00	20	0.720	0.80	0.70
TPSME4018-101M	100.00	20	1.740	0.55	0.35

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME4018 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

4030

Electrical Specification (TPSME4030)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME4030-R91M	0.91	20	0.029	7.30	3.50
TPSME4030-1R0M	1.00	20	0.034	6.50	3.30
TPSME4030-1R2M	1.20	20	0.038	6.00	3.25
TPSME4030-1R5M	1.50	20	0.039	5.50	3.20
TPSME4030-2R2M	2.20	20	0.046	4.70	2.85
TPSME4030-3R3M	3.30	20	0.052	3.70	2.65
TPSME4030-4R7M	4.70	20	0.078	3.20	2.20
TPSME4030-6R8M	6.80	20	0.109	2.80	1.80
TPSME4030-100M	10.00	20	0.125	2.20	1.65
TPSME4030-120M	12.00	20	0.170	2.10	1.45
TPSME4030-150M	15.00	20	0.245	1.90	1.20
TPSME4030-220M	22.00	20	0.295	1.50	1.10
TPSME4030-330M	33.00	20	0.415	1.30	0.95
TPSME4030-390M	39.00	20	0.450	1.10	0.90
TPSME4030-470M	47.00	20	0.580	1.05	0.80
TPSME4030-560M	56.00	20	0.720	0.95	0.70
TPSME4030-620M	62.00	20	1.080	0.85	0.60
TPSME4030-680M	68.00	20	1.130	0.85	0.55
TPSME4030-101M	100.00	20	1.450	0.75	0.50
TPSME4030-121M	120.00	20	1.630	0.60	0.47
TPSME4030-151M	150.00	20	1.720	0.60	0.46
TPSME4030-331M	330.00	20	4.080	0.38	0.30

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME4030 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

5020

Electrical Specification (TPSME5020)

Part Number	L (μH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME5020-R47M	0.47	20	0.017	6.15	4.60
TPSME5020-R75M	0.75	20	0.022	5.50	4.00
TPSME5020-1R0M	1.00	20	0.026	4.10	3.80
TPSME5020-1R2M	1.20	20	0.029	4.50	3.55
TPSME5020-1R5M	1.50	20	0.034	4.10	3.20
TPSME5020-2R2M	2.20	20	0.042	3.20	2.90
TPSME5020-2R7M	2.70	20	0.049	2.90	2.70
TPSME5020-3R0M	3.00	20	0.049	2.55	2.70
TPSME5020-3R3M	3.30	20	0.056	2.55	2.50
TPSME5020-3R6M	3.60	20	0.056	2.80	2.50
TPSME5020-3R9M	3.90	20	0.056	2.30	2.50
TPSME5020-4R3M	4.30	20	0.074	2.50	2.20
TPSME5020-4R7M	4.70	20	0.074	2.50	2.20
TPSME5020-5R1M	5.10	20	0.083	2.25	2.05
TPSME5020-5R6M	5.60	20	0.083	2.30	2.05
TPSME5020-6R8M	6.80	20	0.108	2.05	1.80
TPSME5020-7R5M	7.50	20	0.117	1.85	1.75
TPSME5020-8R2M	8.20	20	0.127	1.85	1.65
TPSME5020-9R1M	9.10	20	0.143	1.70	1.55
TPSME5020-100M	10.00	20	0.143	1.70	1.55
TPSME5020-120M	12.00	20	0.182	1.50	1.40
TPSME5020-150M	15.00	20	0.215	1.35	1.25
TPSME5020-180M	18.00	20	0.260	1.25	1.15
TPSME5020-220M	22.00	20	0.294	1.15	1.10

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME5020 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

6045

Electrical Specification (TPSME6045)

Part Number	L (μH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME6045-1R0M	1.00	20	0.010	15.00	6.35
TPSME6045-1R2M	1.20	20	0.013	12.50	6.05
TPSME6045-1R5M	1.50	20	0.013	11.50	6.05
TPSME6045-2R2M	2.20	20	0.018	10.50	5.00
TPSME6045-3R3M	3.30	20	0.024	9.00	4.40
TPSME6045-4R7M	4.70	20	0.026	7.50	4.20
TPSME6045-6R8M	6.80	20	0.040	6.20	3.30
TPSME6045-100M	10.00	20	0.056	4.80	3.00
TPSME6045-120M	12.00	20	0.065	4.50	2.75
TPSME6045-150M	15.00	20	0.085	3.80	2.30
TPSME6045-220M	22.00	20	0.116	3.50	2.00
TPSME6045-330M	33.00	20	0.175	2.60	1.60
TPSME6045-470M	47.00	20	0.260	2.30	1.30
TPSME6045-560M	56.00	20	0.286	1.90	1.25
TPSME6045-680M	68.00	20	0.325	1.80	1.20
TPSME6045-101M	100.00	20	0.468	1.40	1.10

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME6045 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

8040

Electrical Specification (TPSME8040)

Part Number	L (µH)	Tolerance (±%)	DCR (Ω) Max.	IDC Typ. (A)	
				Heat Rating Current DC Amps. Idc (A) L↓30%	Saturation Current DC Amps. Isat (A) L↑40°C
TPSME8040-0R9M	0.9	30	0.008	11.0	7.8
TPSME8040-1R4M	1.4	30	0.010	9.0	7.0
TPSME8040-2R0M	2.0	30	0.012	7.4	6.3
TPSME8040-3R6M	3.6	30	0.020	5.3	4.9
TPSME8040-4R7M	4.7	30	0.024	4.7	4.1
TPSME8040-6R8M	6.8	30	0.033	4.0	3.7
TPSME8040-100M	10.0	20	45	3.4	3.1
TPSME8040-150M	15.0	20	0.065	2.7	2.4
TPSME8040-220M	22.0	20	0.086	2.2	2.2
TPSME8040-330M	33.0	20	0.130	1.9	1.7
TPSME8040-470M	47.0	20	0.195	1.5	1.4
TPSME8040-680M	68.0	20	0.299	1.2	1.1
TPSME8040-101M	100.0	20	0.377	1.0	1.0

Remark:

- **The part temperature (ambient +temp rise) should not exceed 125°C under the worst case operating conditions. Circuit Design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part Temperature. Part temperature should be verified in the application. The rated current as listed is either the saturation current or the heating current depending on which value is lower.**

Note TPSME8040 All Series:

- **All test data is referenced to 25°C ambient. Test condition: 100KHZ, 0.1Vrms.**
- **Irms: DC current(A) that will cause an approximate Δt of 40°C.**
- **Isat: DC current(A) that will cause L0 to drop approximately 30%.**
- **Operationg Temperature Range -55°C to +125°C.**

Order Codes

Order Codes (TPSME)

TPSME	3010		-	R10		M	
Part Number	Dimensions (L×M)(mm)			Inductance		Tolerance	
TPSME	201610	2.0×1.6		R24	0.24μH	J	± 5%
	252010	2.5×2.0		1R0	1.00μH	K	± 10%
	252012	2.5×2.0		100	10.00μH	L	± 15%
	3010	3.0×3.0		101	100.00μH	M	± 20%
	3012	3.0×3.0				P	± 25%
	3015	3.0×3.0				N	± 30%
	4012	4.0×4.0					
	4018	4.0×4.0					
	4030	4.0×4.0					
	5020	5.0×5.0					
	5040	5.0×5.0					
	6045	6.0×6.0					
	8040	8.0×8.0					

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSPA) Low-Profile High-Current Power Inductors

Product Introduction

Token Power Inductor Enhances Low-Profile High-Current With Up To 1MHz High Frequency.

Features :

- Good magnetic shielding.
- Low Profile: 1.2mm ~ 7.0mm.
- High current (rated current): 1A ~ 42A.
- High frequency (up to 1MHz).

Applications :

- DC to DC converter.
- Power distribution system or VRM application.
- Thin board power supply switching module.
- Notebook computer, PC display card, VGA module.

Token's (TPSPA) inductor features high current and low direct current resistance (DCR) in a rugged surface-mount package. Available in six industry-standard footprint (4.2 mm x 4.4 mm), (5.2 mm x 5.4 mm), (6.6 mm x 7.15 mm), (10.1 mm x 11.15 mm), (12.6 mm x 13.65 mm), and (17.15 mm x 17.15 mm) with a profile from 1.2 mm to 7.0 mm maximum, the TPSPA series inductors use an advanced core material that operating temperature range from -25°C to +125°C, and are said to provide the lowest DCR of any inductor in this size and profile.

These high current inductors are suitable for use in voltage regulator module applications in desktop computers, notebook computers, point-of-load converters, workstations and servers as well as DC-DC applications, and other high-power, high-density, high-ambient temperature applications.

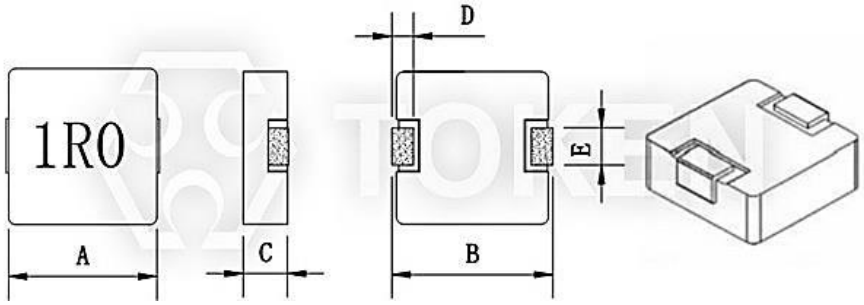
Token (TPSPA) series provides a high peak saturation current and a maximum operating current rating that enables the inductors to handle the high current requirements of microprocessors with significant saturation margin. The series also offers a saturation current range from 2.0A up to 75A, heat rating current from 1.0A to 43A, typical DCR from 0.5mΩ to 300.0mΩ, and maximum DCR from 0.65mΩ to 350mΩ, which results in lower copper losses and maximizes the current rating for higher component performance and system efficiency. The inductance values range from 0.1µH to 150µH.

The (TPSPA) inductors are RoHS compliant and meet standard EIA481 requirements. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (TPSPA)

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
TPSPA0420	4.2 ± 0.25	4.4 ± 0.35	2.0 max.	0.8 ± 0.3	1.5 ± 0.3
TPSPA0518	5.2 ± 0.25	5.4 ± 0.35	1.8 max.	1.0 ± 0.3	2.3 ± 0.3
TPSPA0530	5.2 ± 0.25	5.4 ± 0.35	3.0 max.	1.0 ± 0.3	2.3 ± 0.3
TPSPA0612	6.6 ± 0.25	7.15 ± 0.35	1.2 max.	1.5 ± 0.3	3.0 ± 0.3
TPSPA0615	6.6 ± 0.25	7.15 ± 0.35	1.5 max.	1.5 ± 0.3	3.0 ± 0.3
TPSPA0618	6.6 ± 0.25	7.15 ± 0.35	1.8 max.	1.5 ± 0.3	3.0 ± 0.3
TPSPA0624	6.6 ± 0.25	7.15 ± 0.35	2.4 max.	1.5 ± 0.3	3.0 ± 0.3
TPSPA0630	6.6 ± 0.25	7.15 ± 0.35	3.0 max.	1.5 ± 0.3	3.0 ± 0.3
TPSPA0650	6.6 ± 0.25	7.15 ± 0.35	5.0 max.	1.5 ± 0.3	3.0 ± 0.3
TPSPA1030	10.1 ± 0.25	11.15 ± 0.35	3.0 max.	2.0 ± 0.5	3.0 ± 0.5
TPSPA1040	10.1 ± 0.25	11.15 ± 0.35	4.0 max.	2.0 ± 0.5	3.0 ± 0.5
TPSPA1050	10.1 ± 0.25	11.15 ± 0.35	5.0 max.	2.0 ± 0.5	3.0 ± 0.5
TPSPA1335	12.6 ± 0.2	13.65 ± 0.35	3.5 max.	2.5 ± 0.5	3.8 ± 0.5
TPSPA1350	12.6 ± 0.2	13.65 ± 0.35	5.0 max.	2.5 ± 0.5	3.8 ± 0.5
TPSPA1360	12.6 ± 0.2	13.65 ± 0.35	6.0 max.	2.5 ± 0.5	3.8 ± 0.5
TPSPA1365	12.6 ± 0.2	13.65 ± 0.35	6.5 max.	2.5 ± 0.5	3.8 ± 0.5
TPSPA1770	17.15 max.	17.15 ± 0.35	7.0 max.	2.5 ± 0.5	12.0 ± 0.5



0420

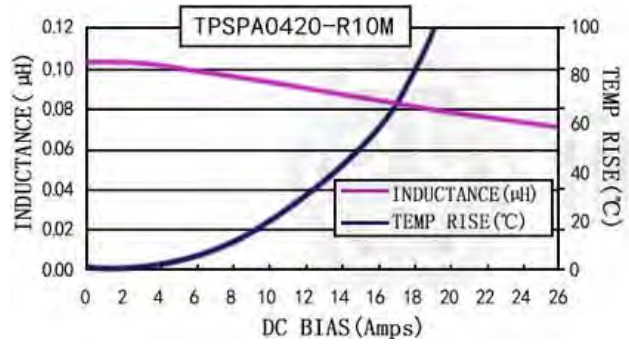
Electrical Characteristics (TPSPA0420)

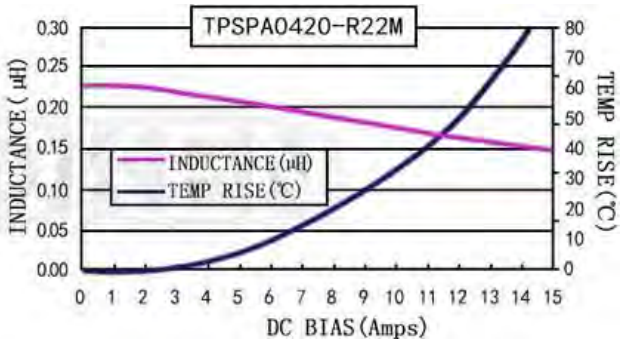
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0420-R10M	0.10	3.5	4.0	13.0	27.0
TPSPA0420-R22M	0.22	6.0	6.6	9.5	21.0
TPSPA0420-R47M	0.47	12.5	14.0	7.0	9.5
TPSPA0420-R56M	0.56	14.0	16.0	6.0	8.5
TPSPA0420-R68M	0.68	19.6	21.0	5.2	8.0
TPSPA0420-1R0M	1.00	24.0	27.0	4.5	7.0
TPSPA0420-1R5M	1.50	35.0	42.0	4.0	6.0
TPSPA0420-2R2M	2.20	52.0	58.0	3.0	5.0
TPSPA0420-3R3M	3.30	74.0	87.0	2.5	4.0
TPSPA0420-4R7M	4.70	92.0	104.0	2.2	3.0
TPSPA0420-6R8M	6.80	160.0	175.0	2.0	2.5
TPSPA0420-100M	10.00	230.0	265.0	1.6	2.2

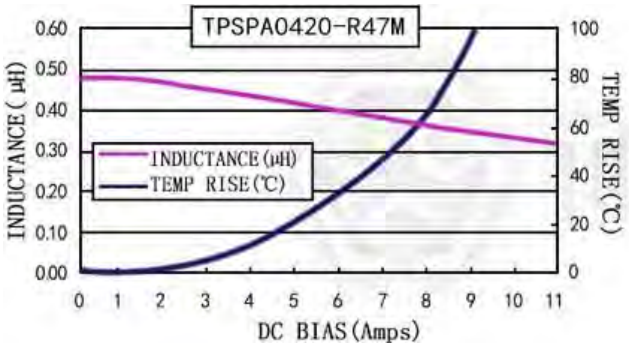
Note:

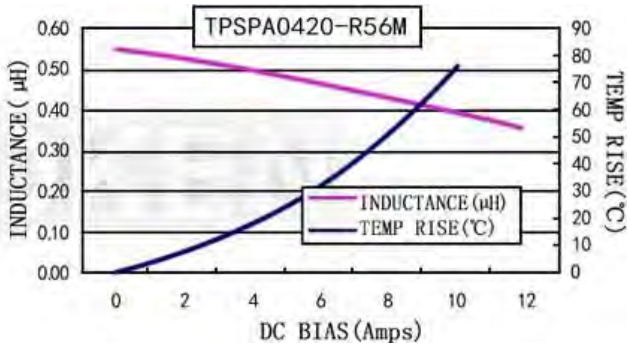
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

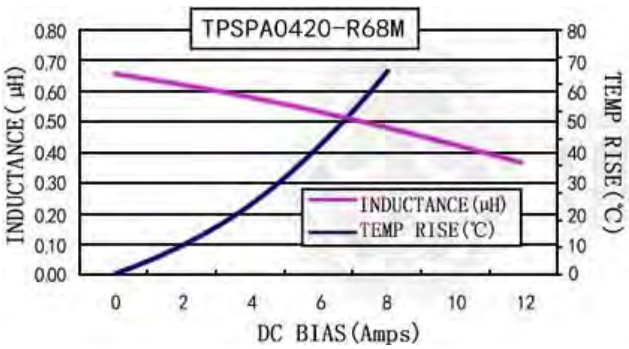
Current characteristics TPSPA0420-***M Series

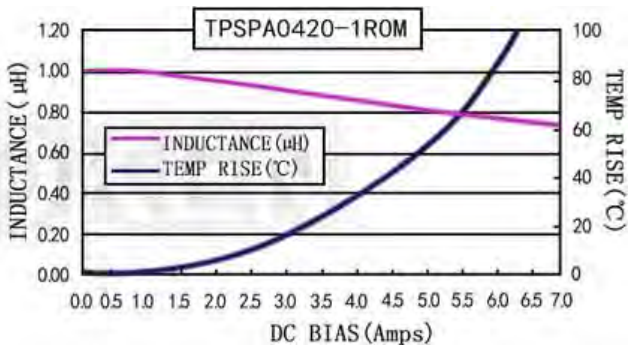




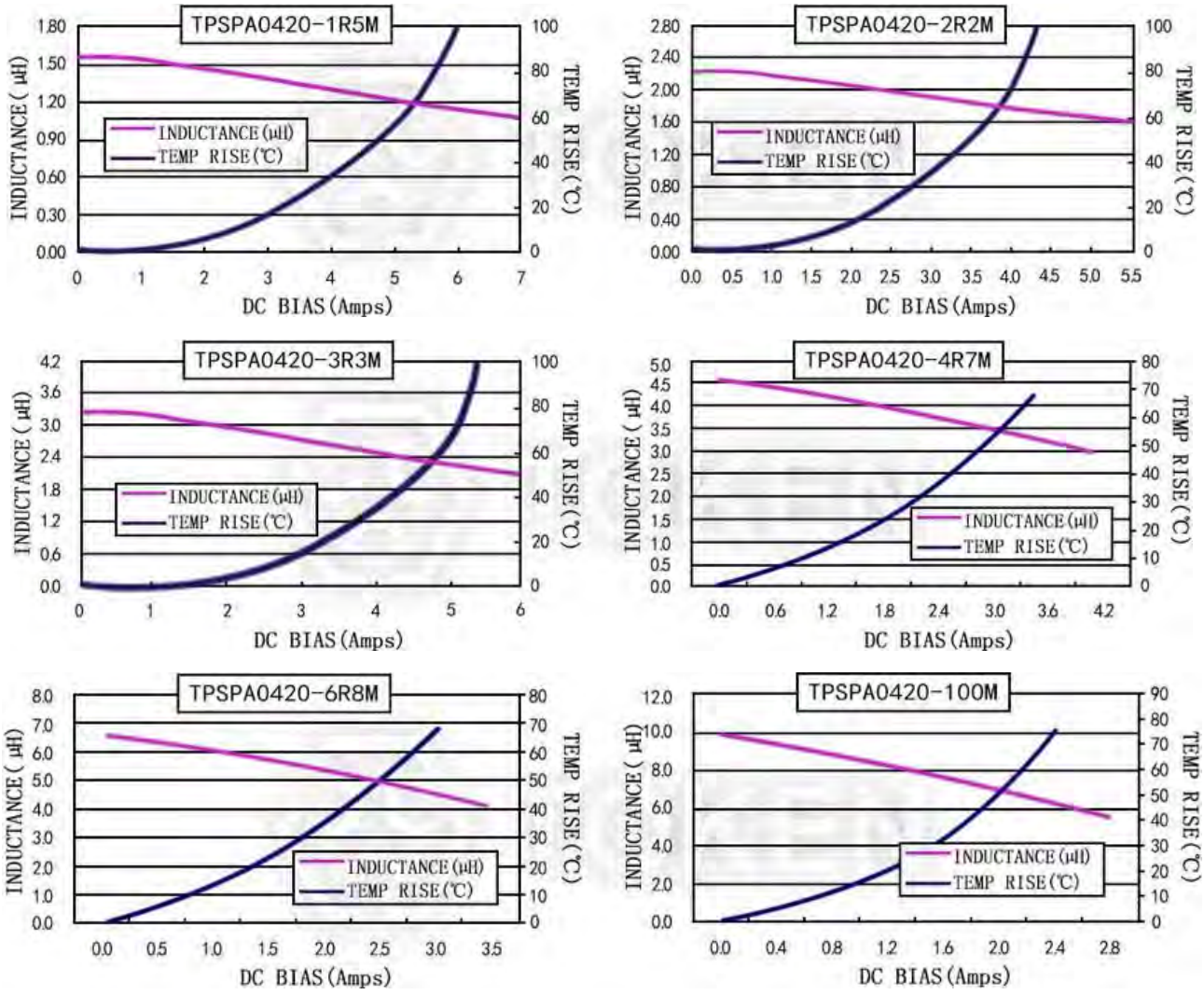








Current characteristics TPSPA0420-***M Series



Current characteristics TPSPA0420-***M Series

0518

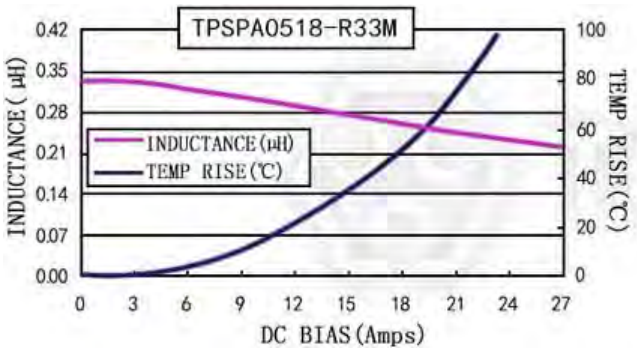
Electrical Characteristics (TPSPA0518)

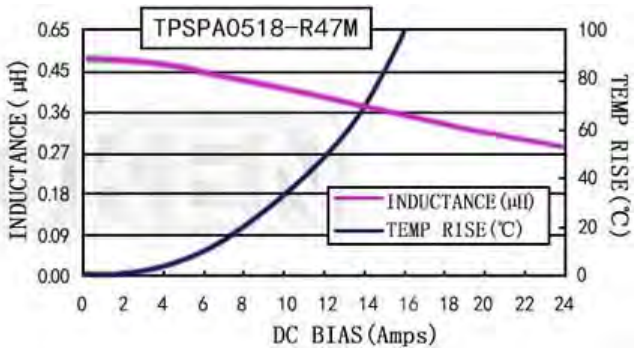
Part Number	L0 Inductance (μH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0518-R33M	0.33	5.7	6.8	15.0	17.0
TPSPA0518-R47M	0.47	7.7	9.0	10.5	15.5
TPSPA0518-R56M	0.56	8.0	10.0	9.5	15.0
TPSPA0518-R68M	0.68	11.5	13.0	8.0	14.0
TPSPA0518-R82M	0.82	13.0	15.0	8.0	10.0
TPSPA0518-1R0M	1.00	15.0	17.0	8.0	9.0
TPSPA0518-1R2M	1.20	17.0	20.0	7.5	8.0
TPSPA0518-1R5M	1.50	26.0	30.0	6.0	7.0
TPSPA0518-2R2M	2.20	30.0	35.0	5.0	6.5
TPSPA0518-3R3M	3.30	52.0	58.0	4.5	5.0
TPSPA0518-4R7M	4.70	78.0	85.0	3.5	4.0
TPSPA0518-5R6M	5.60	85.0	95.0	3.0	3.5
TPSPA0518-6R8M	6.80	107.0	120.0	2.8	3.4
TPSPA0518-8R2M	8.20	131.0	145.0	2.6	3.1
TPSPA0518-100M	10.00	140.0	155.0	2.5	3.0

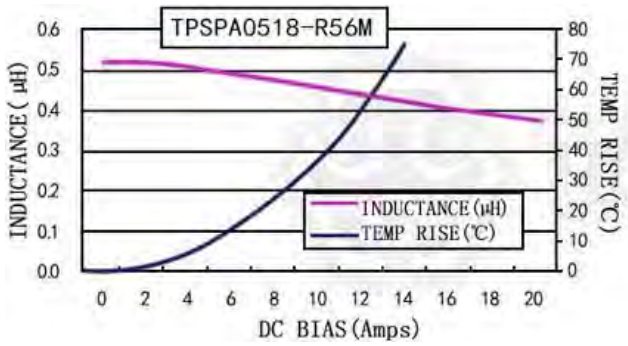
Note:

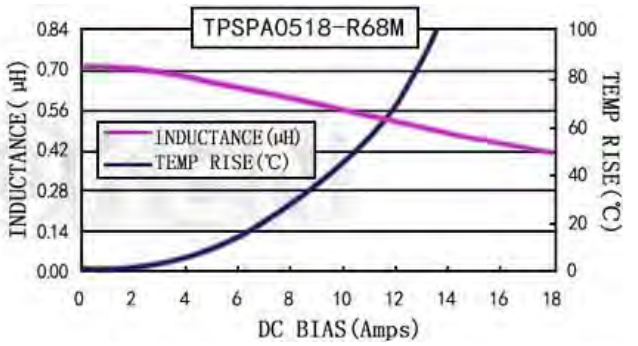
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

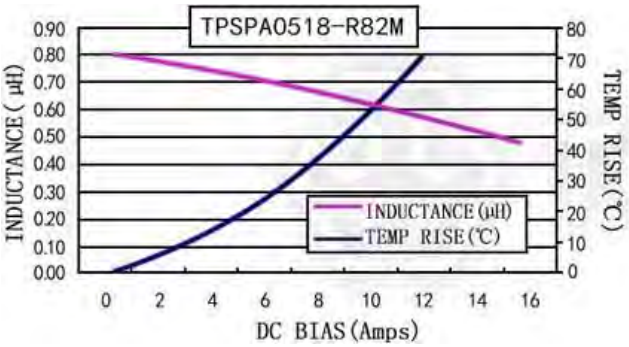
Current characteristics TPSPA0518-***M Series

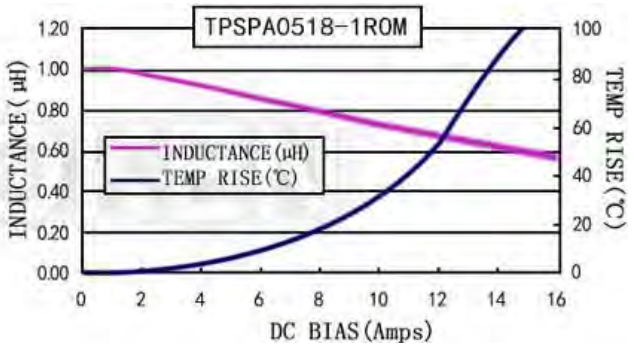


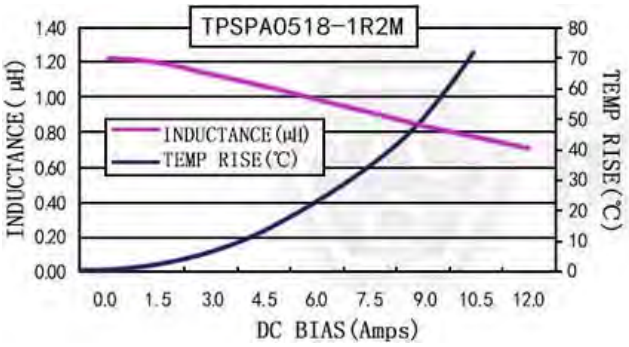


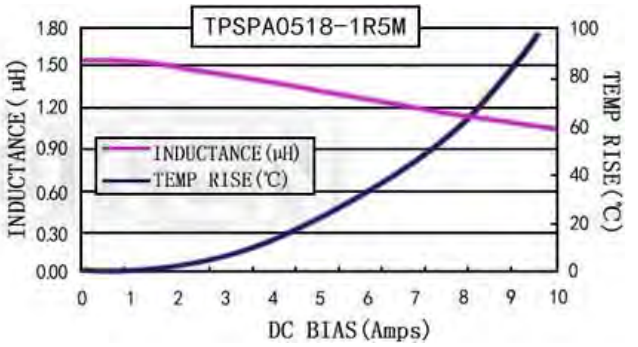




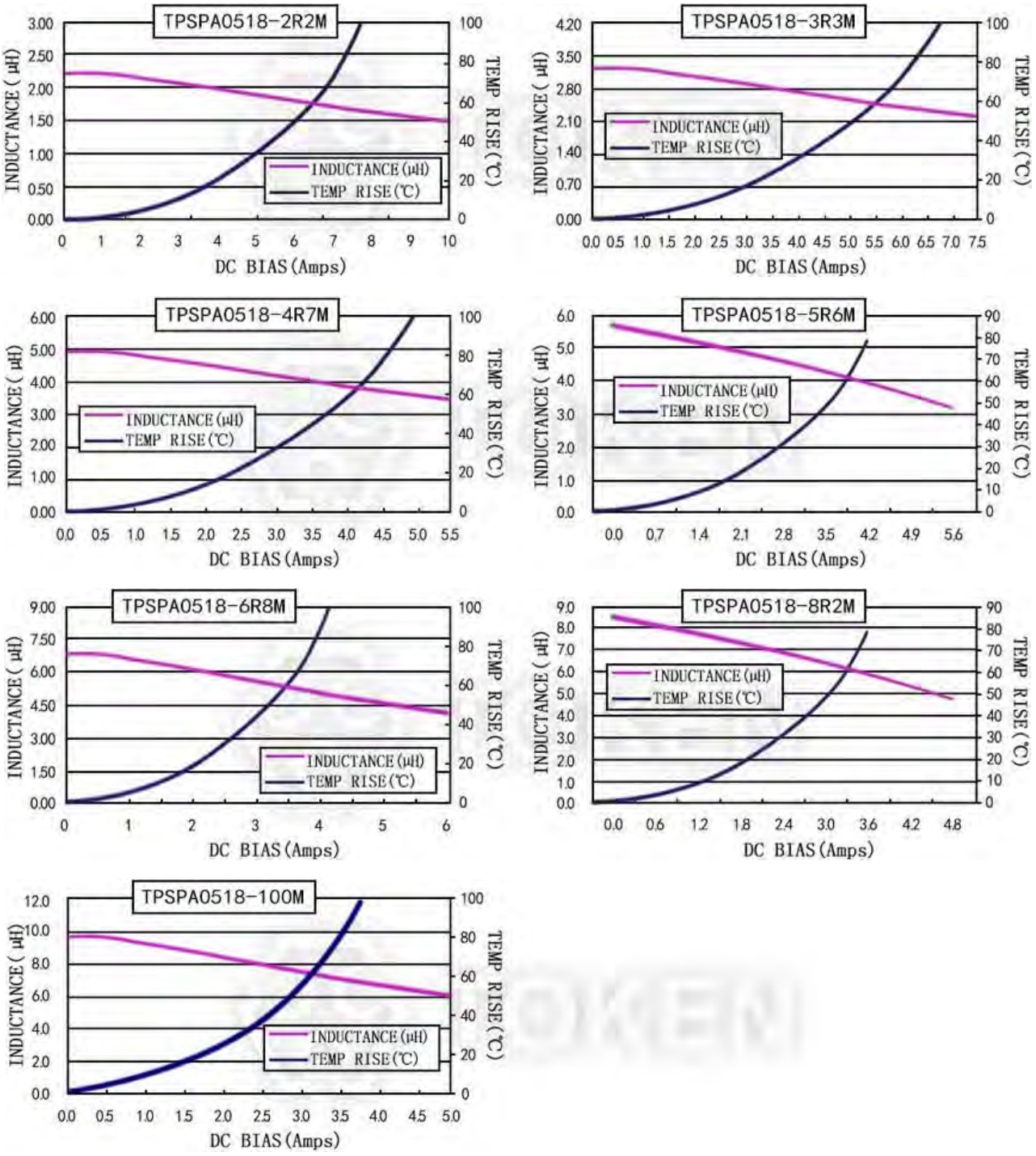








Current characteristics TPSPA0518-***M Series



characteristics TPSPA0518-*M Series**

0530

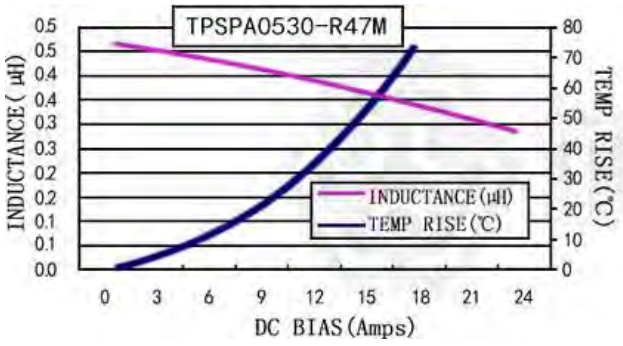
Electrical Characteristics (TPSPA0530)

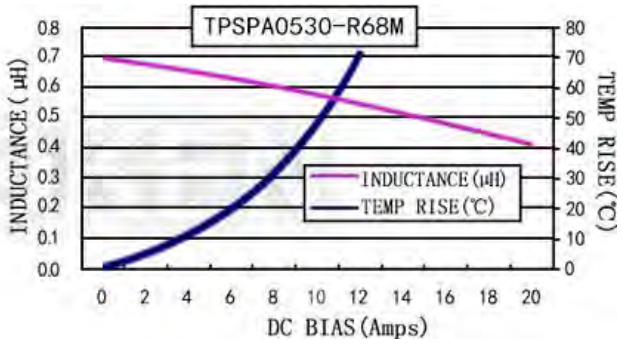
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0530-R47M	0.47	6.4	7.4	12.0	16.0
TPSPA0530-R68M	0.68	11.0	12.0	8.5	14.0
TPSPA0530-R75M	0.75	12.0	13.0	8.0	12.0
TPSPA0530-1R0M	1.00	13.0	14.0	7.0	9.0
TPSPA0530-1R2M	1.20	15.0	16.0	6.5	8.5
TPSPA0530-1R5M	1.50	20.0	25.0	6.0	8.2
TPSPA0530-2R2M	2.20	29.0	35.0	5.5	7.5
TPSPA0530-3R3M	3.30	32.0	38.0	5.0	5.0
TPSPA0530-4R7M	4.70	50.0	60.0	4.0	4.2
TPSPA0530-5R6M	5.60	55.0	63.0	4.0	4.0
TPSPA0530-6R8M	6.80	68.0	76.0	4.0	3.5
TPSPA0530-8R2M	8.20	80.0	105.0	3.3	3.0
TPSPA0530-100M	10.00	110.0	128.0	2.8	2.7

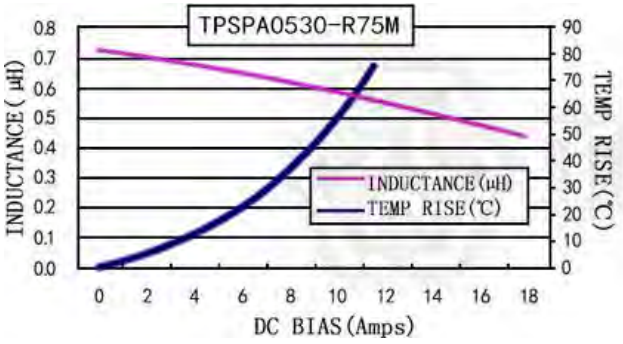
Note:

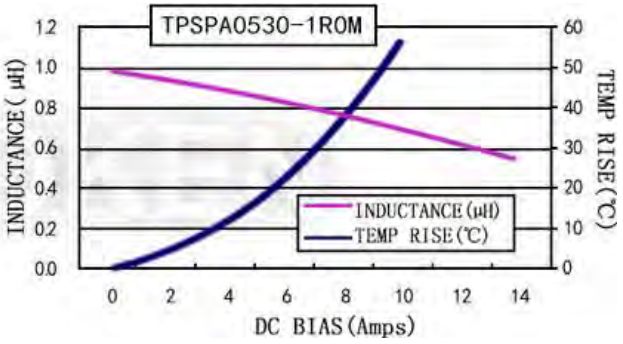
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

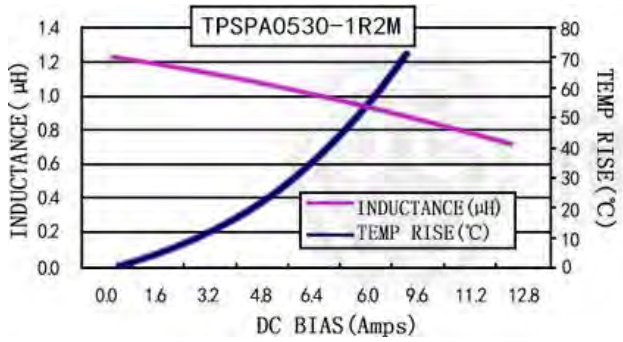
Current characteristics TPSPA0530-***M Series

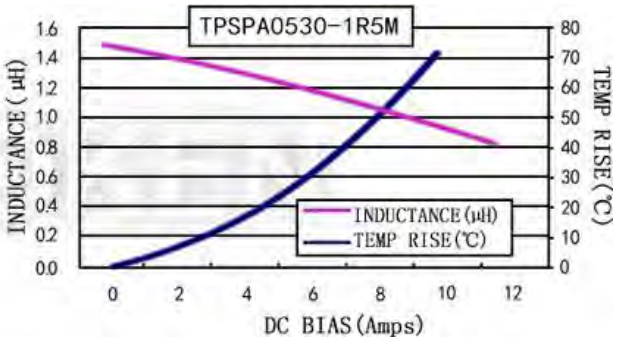




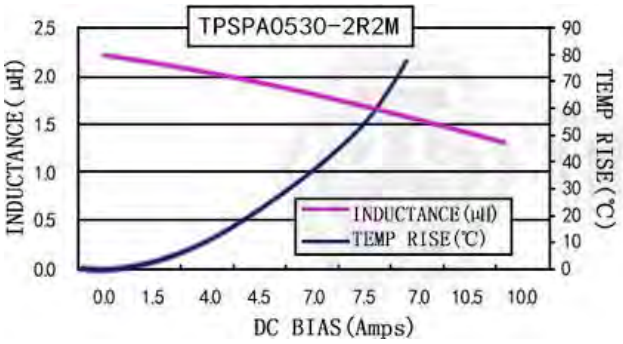


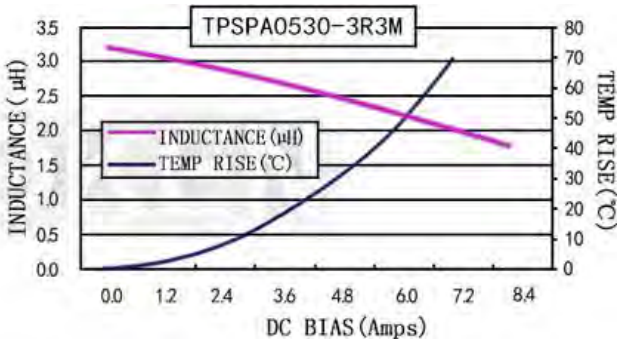


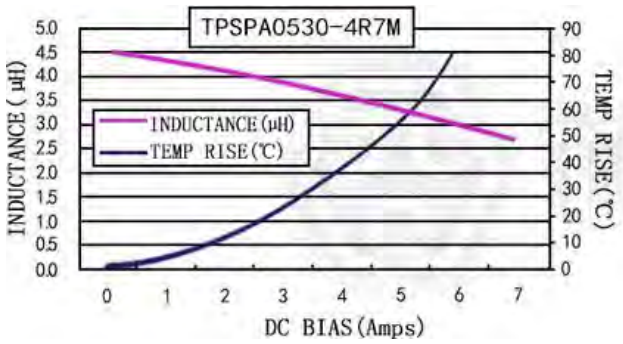


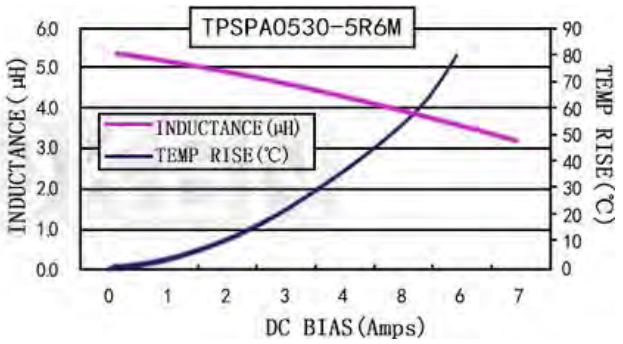


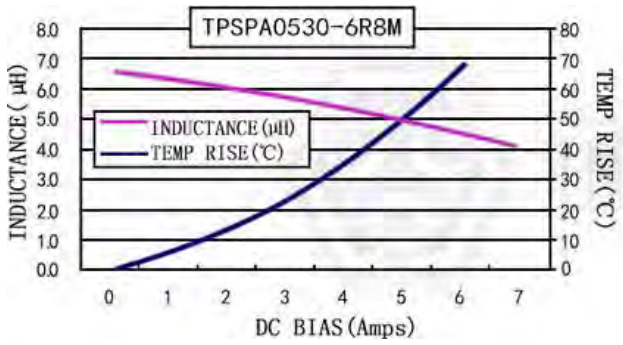
Current characteristics TPSPA0530-***M Series

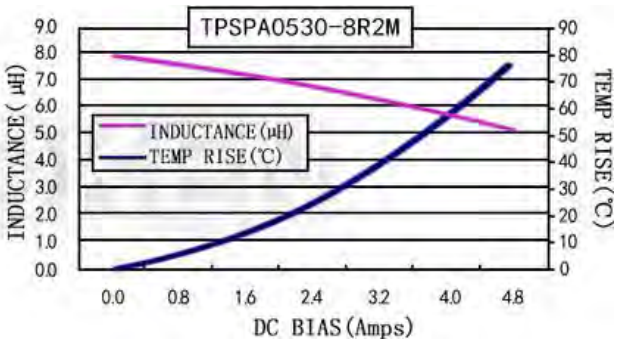


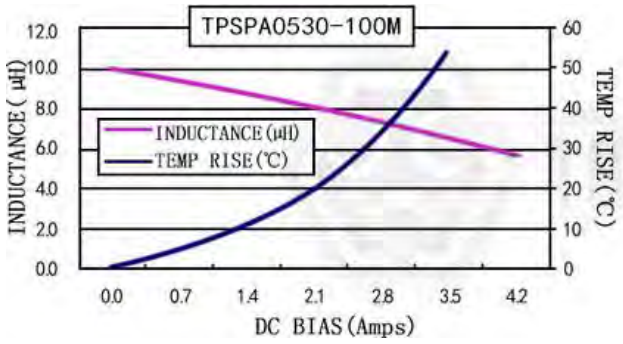












characteristics TPSPA0530-*M Series**

0612

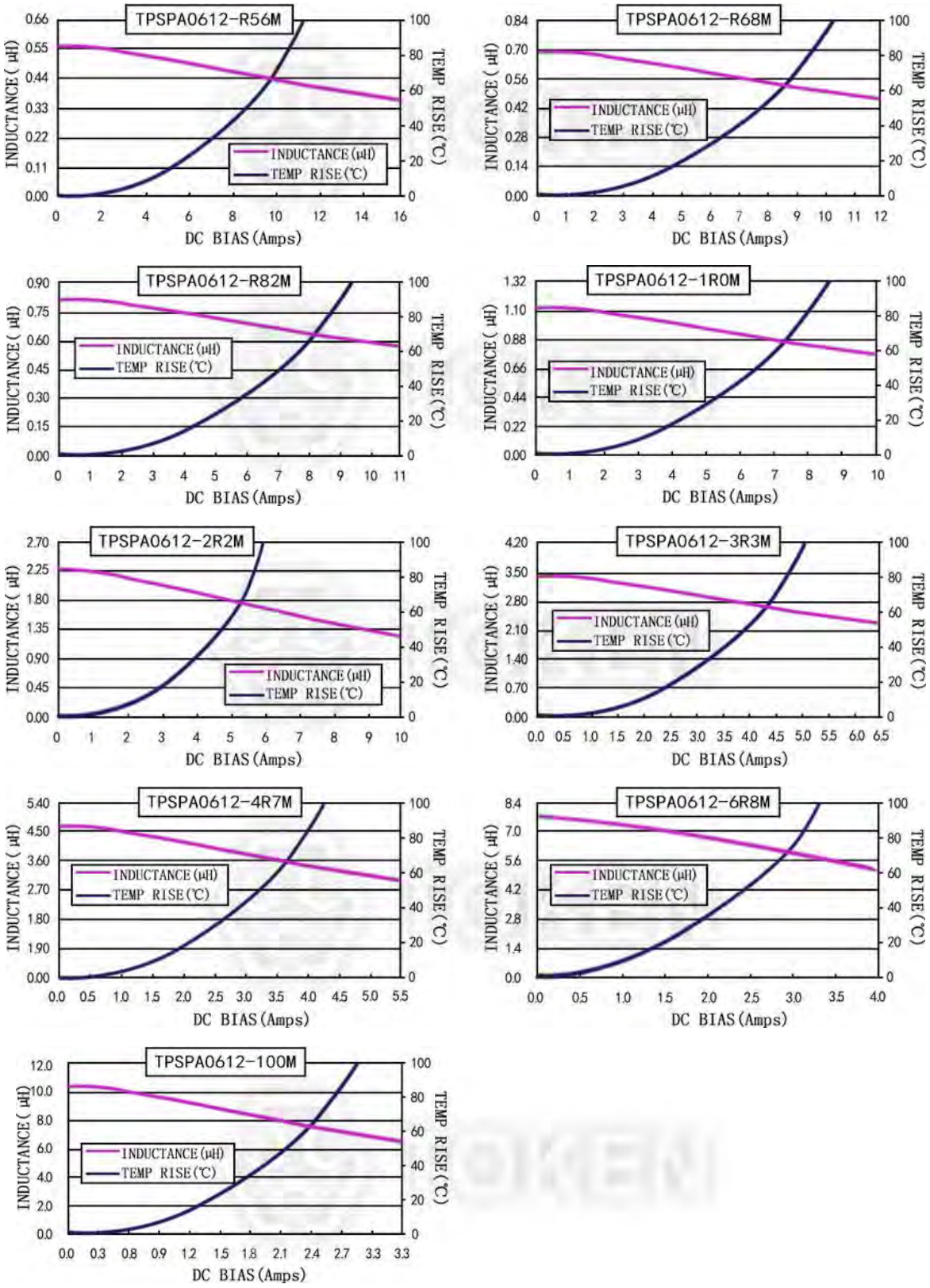
Electrical Characteristics (TPSPA0612)

Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0612-R56M	0.56	13.5	15.5	7.0	11.0
TPSPA0612-R68M	0.68	15.0	17.5	6.7	9.0
TPSPA0612-R82M	0.82	21.5	24.5	6.3	8.0
TPSPA0612-1R0M	1.00	25.0	29.0	6.0	7.0
TPSPA0612-2R2M	2.20	51.5	59.0	4.0	5.0
TPSPA0612-3R3M	3.30	80.0	92.0	3.0	4.0
TPSPA0612-4R7M	4.70	106.0	122.0	2.7	3.5
TPSPA0612-6R8M	6.80	185.0	210.0	2.2	2.8
TPSPA0612-100M	10.00	250.0	290.0	2.0	2.2

Note:

- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

Current characteristics TPSPA0612-***M Series



characteristics TPSPA0612-***M Series

0615

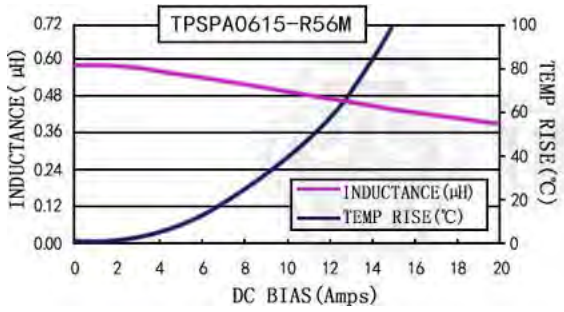
Electrical Characteristics (TPSPA0615)

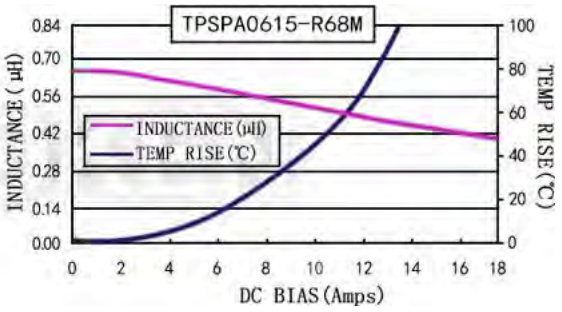
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0615-R56M	0.56	9.5	11.0	9.0	14.0
TPSPA0615-R68M	0.68	10.5	12.0	8.5	12.0
TPSPA0615-R82M	0.82	15.0	17.0	7.0	10.0
TPSPA0615-1R0M	1.00	18.5	21.0	5.5	9.0
TPSPA0615-1R2M	1.20	25.0	30.0	5.4	8.5
TPSPA0615-2R2M	2.20	46.0	54.0	3.5	6.0
TPSPA0615-3R3M	3.30	54.0	63.0	3.3	5.5
TPSPA0615-4R7M	4.70	76.0	85.0	3.2	5.0
TPSPA0615-6R8M	6.80	125.0	135.0	2.5	4.0
TPSPA0615-100M	10.00	165.0	175.0	2.0	3.0

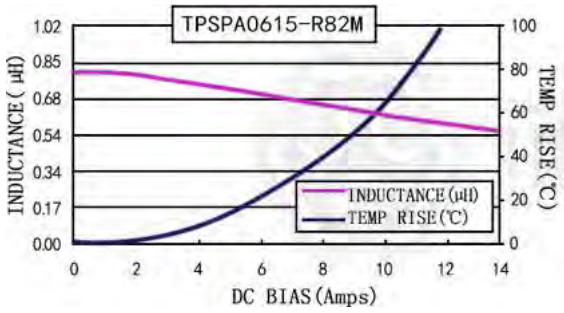
Note:

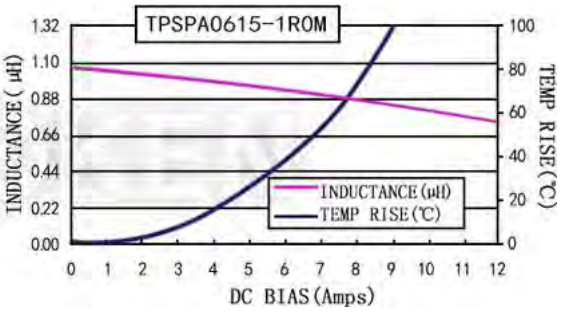
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

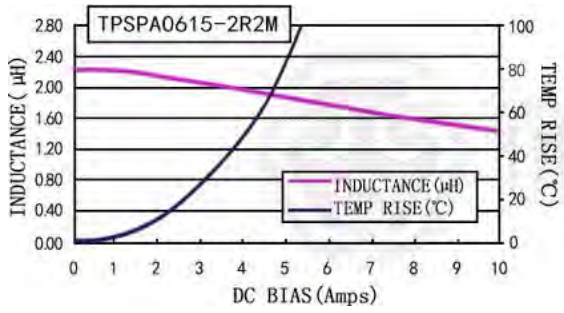
Current characteristics TPSPA0615-***M Series

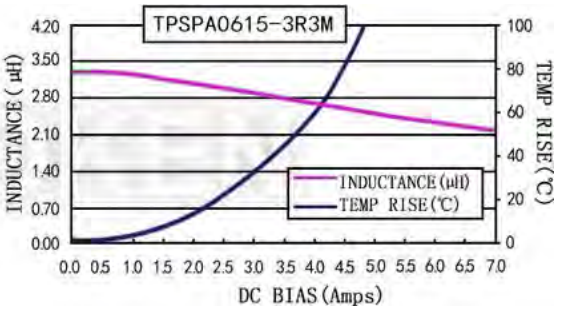


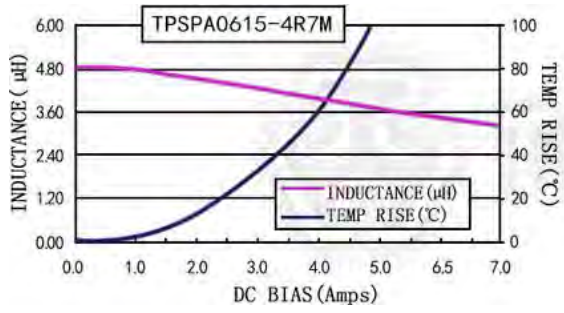


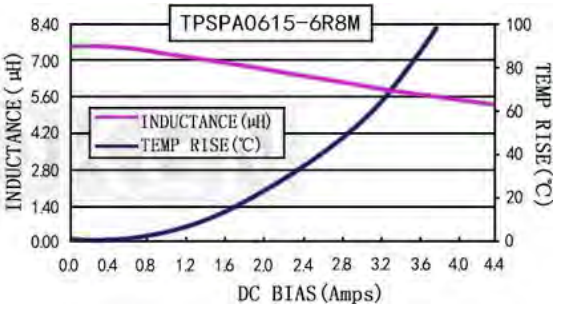


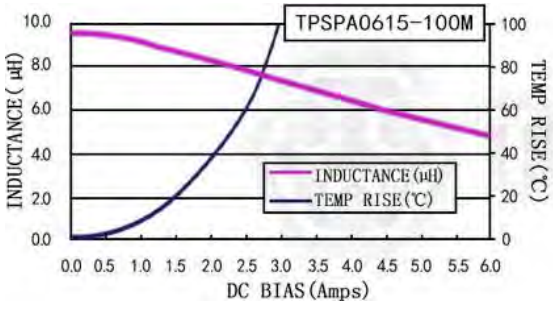












characteristics TPSPA0615-*M Series**

0618

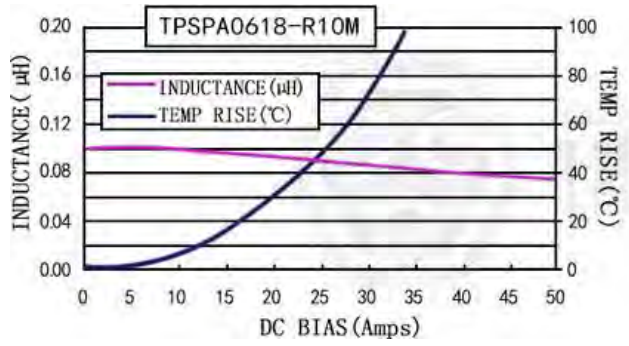
Electrical Characteristics (TPSPA0618)

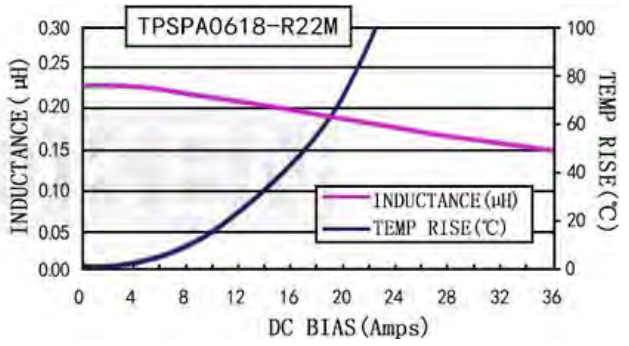
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0618-R10M	0.10	2.0	2.5	18.0	45.0
TPSPA0618-R22M	0.22	4.5	5.2	14.0	29.0
TPSPA0618-R33M	0.33	5.2	6.8	12.0	22.0
TPSPA0618-R47M	0.47	7.3	8.4	11.0	18.0
TPSPA0618-R56M	0.56	8.5	10.0	10.0	15.0
TPSPA0618-R68M	0.68	10.8	12.7	9.0	13.0
TPSPA0618-R82M	0.82	11.5	13.5	8.0	12.0
TPSPA0618-1R0M	1.00	14.5	17.0	7.0	11.0
TPSPA0618-1R5M	1.50	20.0	26.0	6.5	9.0
TPSPA0618-2R0M	2.00	28.0	32.0	6.0	9.0
TPSPA0618-2R2M	2.20	31.0	35.0	5.0	8.0
TPSPA0618-3R3M	3.30	45.0	50.0	3.5	7.5
TPSPA0618-4R7M	4.70	62.0	65.0	3.5	5.0
TPSPA0618-5R6M	5.60	68.0	75.0	3.0	4.0
TPSPA0618-6R8M	6.80	101.0	110.0	2.8	3.5
TPSPA0618-8R2M	8.20	120.0	135.0	2.5	3.0
TPSPA0618-100M	10.00	140.0	155.0	2.3	2.5
TPSPA0618-150M	15.00	215.0	250.0	1.8	2.2

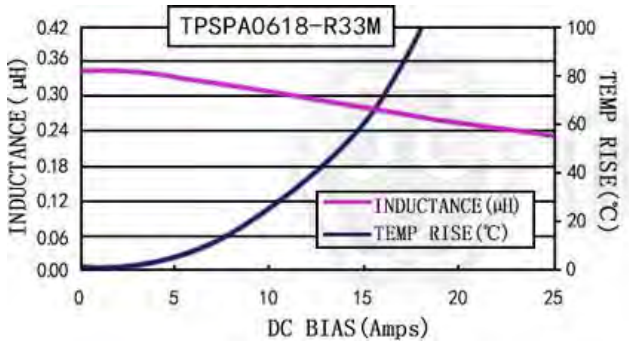
Note:

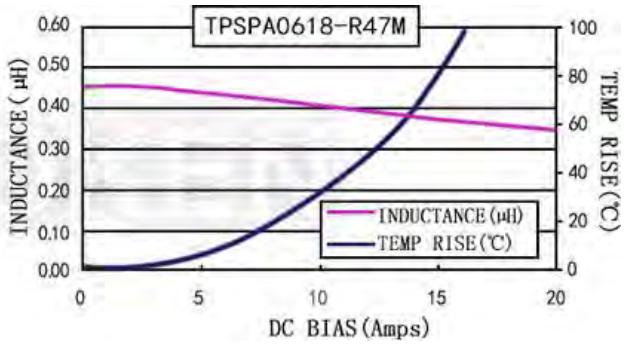
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

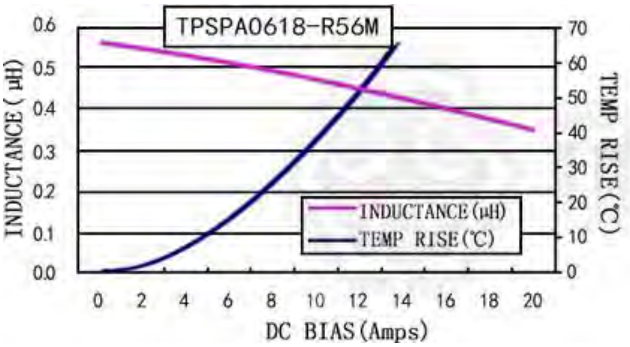
Current characteristics TPSPA0618-***M Series

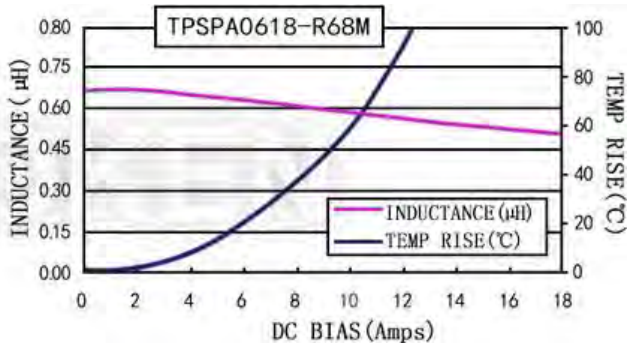


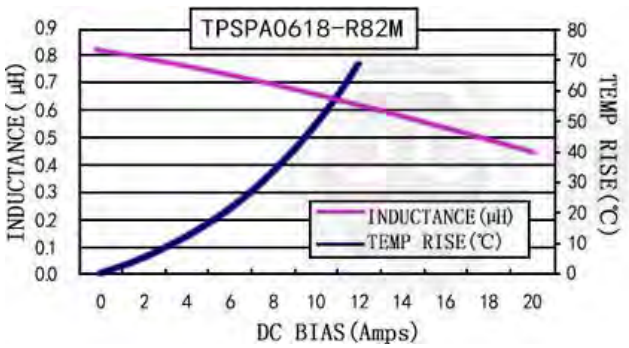


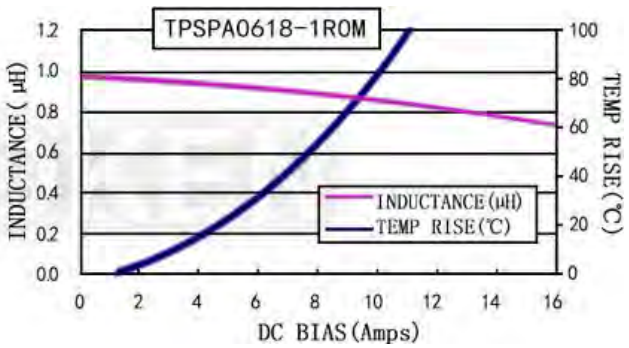




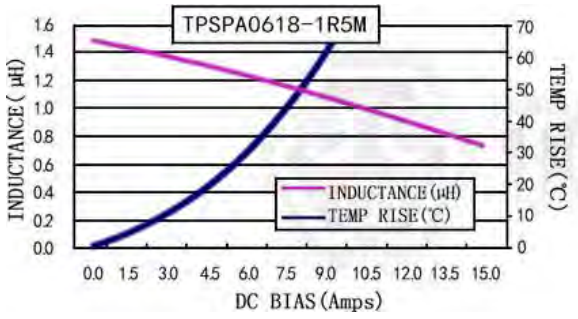


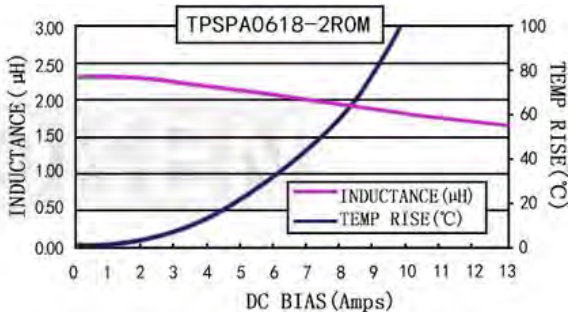


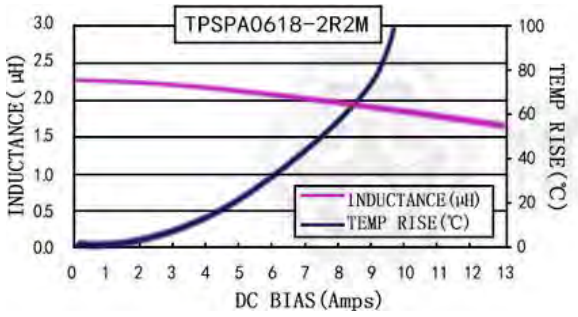


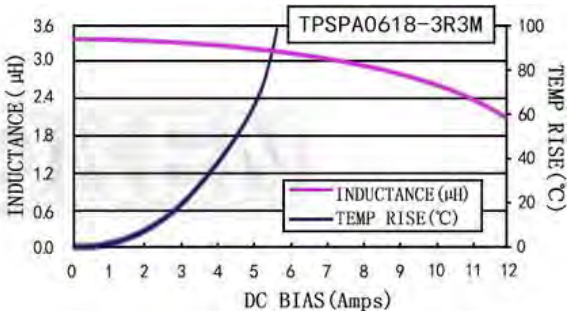


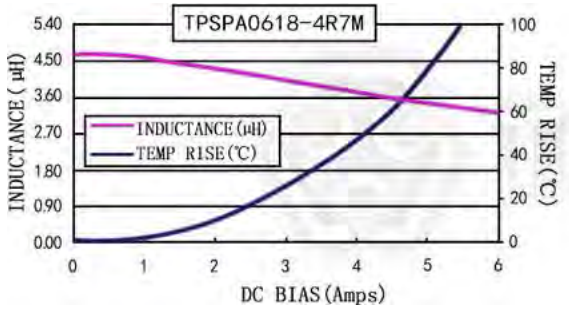
Current characteristics TPSPA0618-***M Series

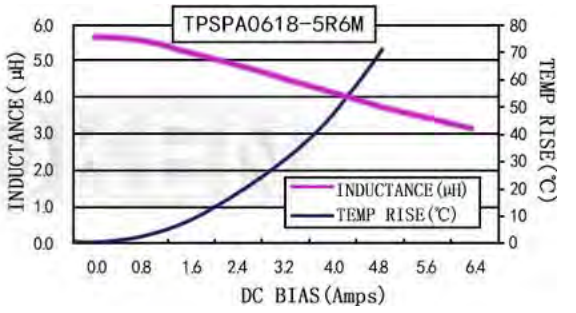


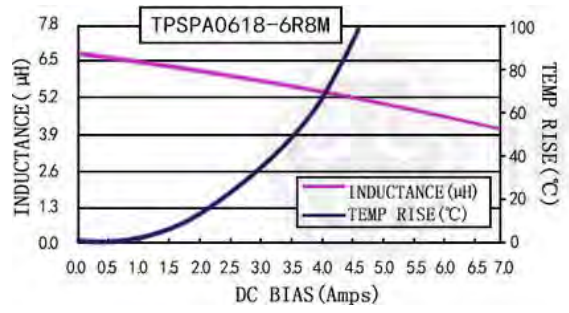


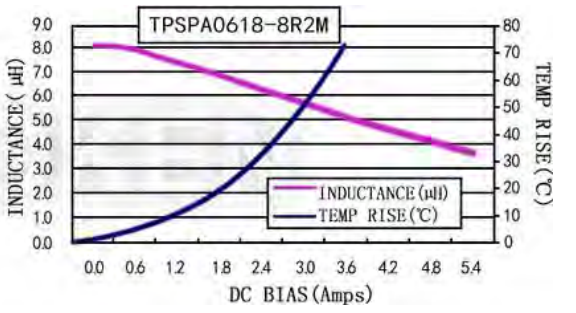


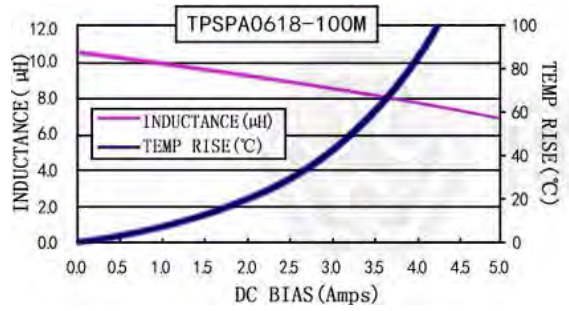


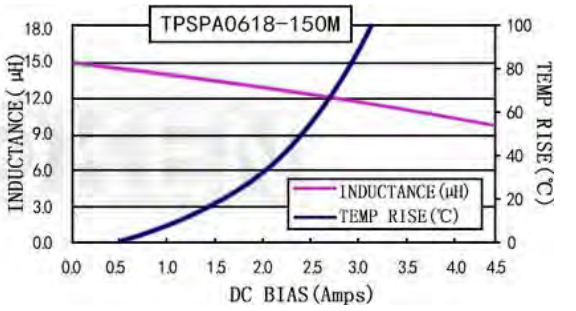












characteristics TPSPA0618-*M Series**

0624

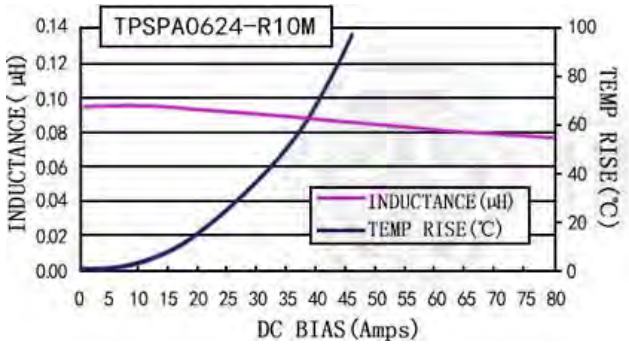
Electrical Characteristics (TPSPA0624)

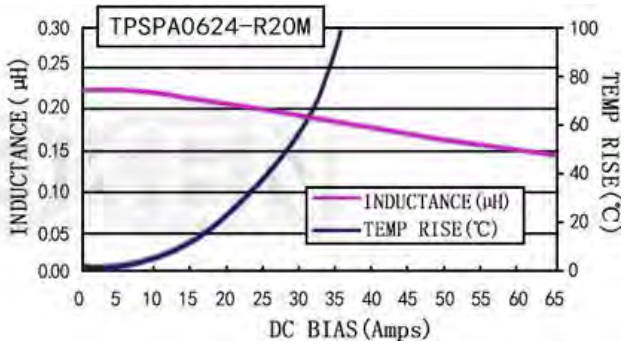
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0624-R10M	0.10	1.5	1.7	30.0	70.0
TPSPA0624-R20M	0.20	2.2	2.8	25.0	50.0
TPSPA0624-R22M	0.22	2.6	3.2	21.0	34.0
TPSPA0624-R33M	0.33	3.5	4.1	15.0	24.0
TPSPA0624-R47M	0.47	4.5	5.1	13.0	21.0
TPSPA0624-R56M	0.56	5.9	6.5	12.0	17.0
TPSPA0624-R82M	0.82	8.3	9.5	10.0	14.0
TPSPA0624-1R0M	1.00	11.2	13.5	9.0	13.0
TPSPA0624-1R5M	1.50	17.0	20.0	8.0	11.0
TPSPA0624-2R2M	2.20	23.0	28.0	6.0	9.0
TPSPA0624-3R3M	3.30	31.0	39.0	5.0	7.0
TPSPA0624-4R7M	4.70	41.0	50.0	4.0	6.0
TPSPA0624-5R6M	5.60	51.0	60.0	4.0	6.0
TPSPA0624-6R8M	6.80	57.0	70.0	4.0	5.0
TPSPA0624-8R2M	8.20	78.0	86.0	3.5	5.0
TPSPA0624-100M	10.00	92.0	101.0	3.1	4.0
TPSPA0624-150M	15.00	145.0	160.0	2.5	3.3

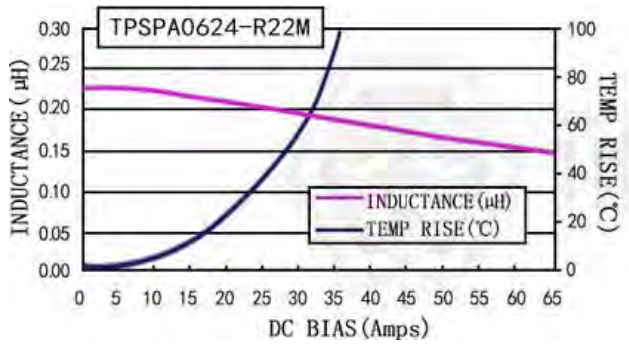
Note:

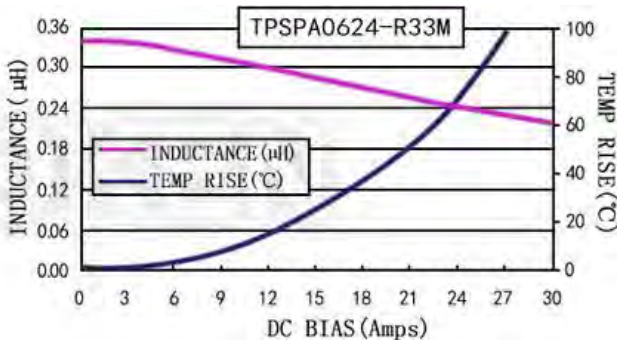
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

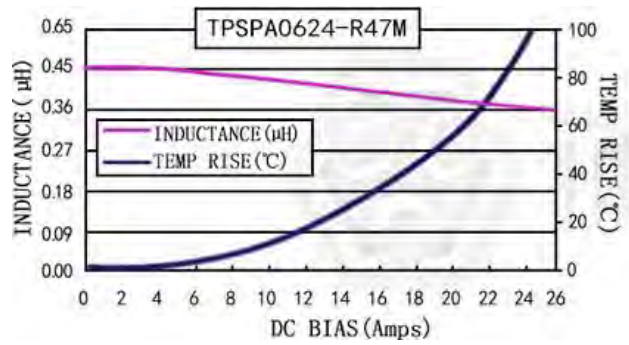
Current characteristics TPSPA0624-***M Series

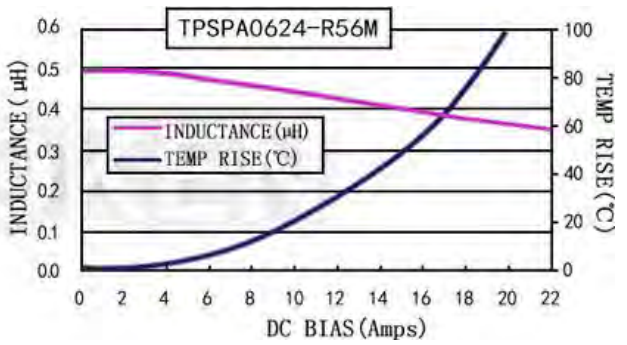


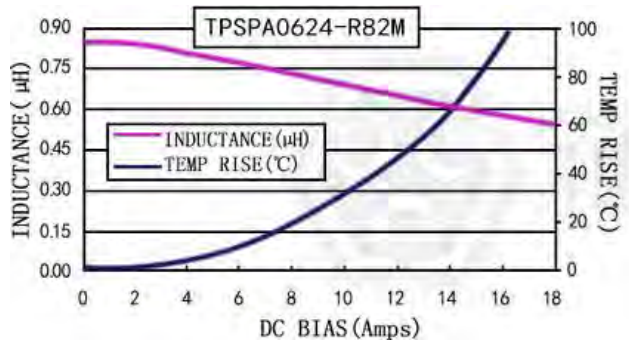


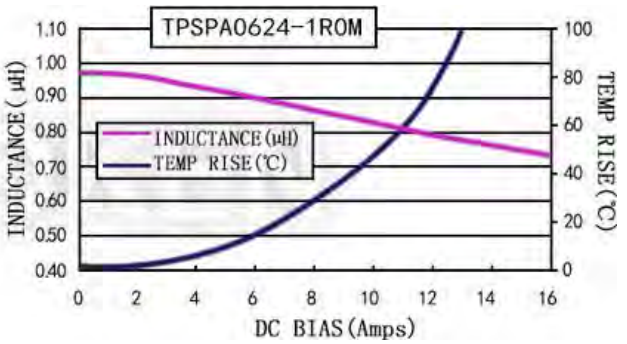




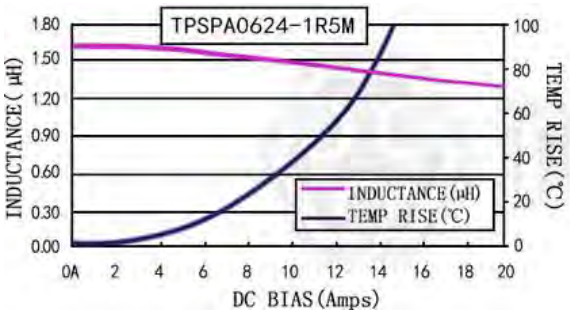


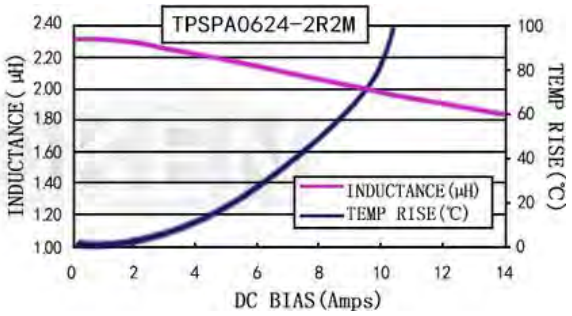


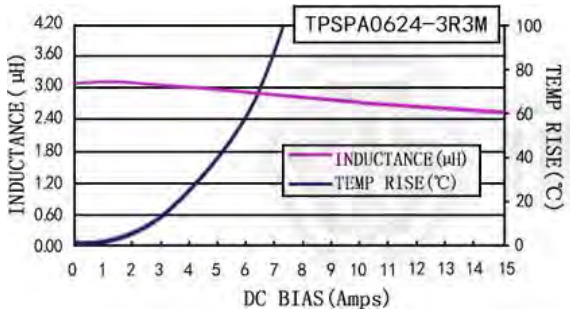


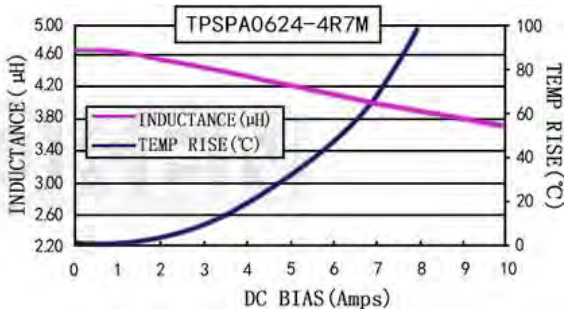


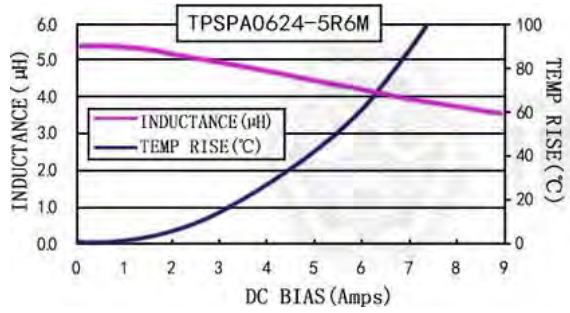
Current characteristics TPSPA0624-***M Series

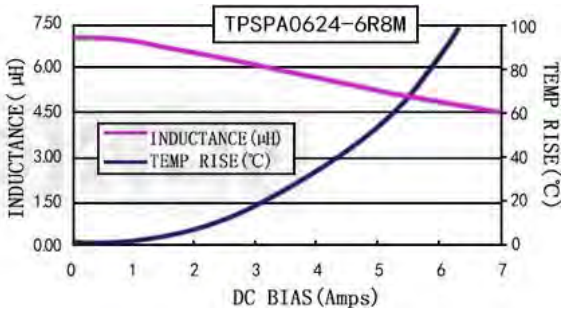


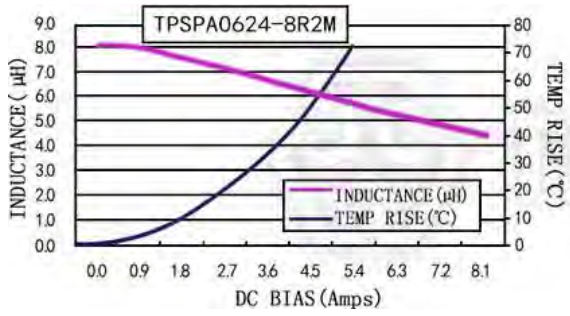


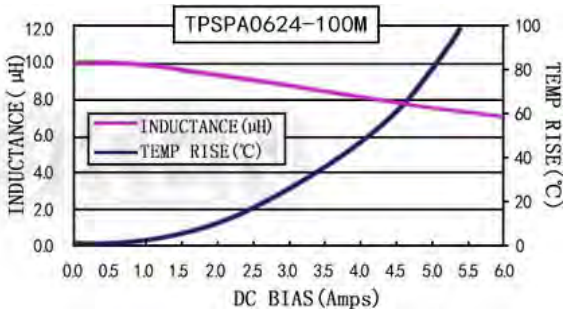


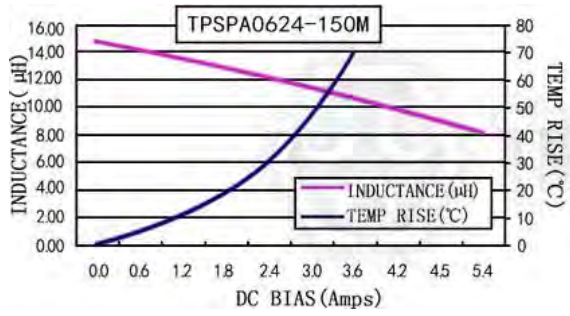












characteristics TPSPA0624-*M Series**

0630

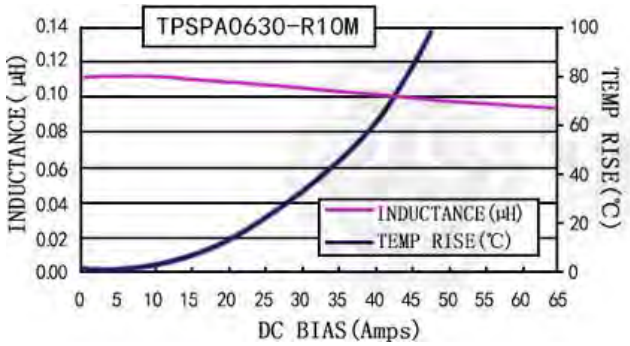
Electrical Characteristics (TPSPA0630)

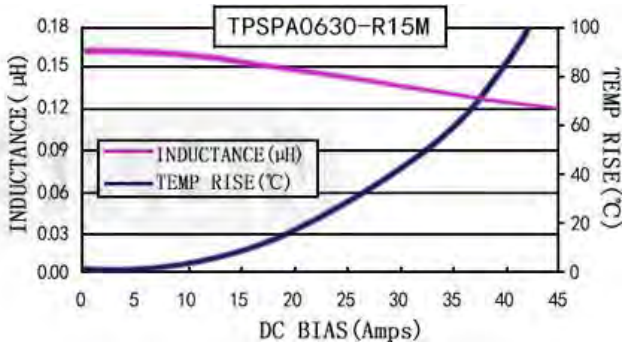
Part Number	L0 Inductance (μH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0630-R10M	0.10	1.5	1.7	32.5	60.0
TPSPA0630-R15M	0.15	1.9	2.5	30.0	40.0
TPSPA0630-R20M	0.20	2.4	3.0	21.0	34.0
TPSPA0630-R22M	0.22	2.5	3.0	21.0	34.0
TPSPA0630-R33M	0.33	3.0	3.5	21.0	22.0
TPSPA0630-R36M	0.36	3.3	3.9	16.0	20.0
TPSPA0630-R47M	0.47	3.5	4.1	15.5	19.0
TPSPA0630-R56M	0.56	4.25	4.9	15.0	18.0
TPSPA0630-R68M	0.68	5.0	5.7	14.0	17.0
TPSPA0630-R82M	0.82	6.0	6.9	12.0	16.0
TPSPA0630-1R0M	1.00	7.0	7.5	12.0	15.0
TPSPA0630-1R2M	1.20	8.0	10.5	9.0	12.0
TPSPA0630-1R5M	1.50	10.6	12.1	9.0	14.0
TPSPA0630-1R8M	1.80	14.0	16.0	7.5	13.0
TPSPA0630-2R2M	2.20	15.5	17.5	7.0	10.0
TPSPA0630-2R5M	2.50	16.0	18.0	7.0	10.0
TPSPA0630-3R3M	3.30	23.0	26.0	6.5	9.5
TPSPA0630-4R7M	4.70	34.5	38.0	5.0	6.5
TPSPA0630-5R6M	5.60	36.0	42.0	5.0	6.25
TPSPA0630-6R8M	6.80	50.0	54.0	4.5	6.0
TPSPA0630-8R2M	8.20	58.5	65.0	4.0	6.0
TPSPA0630-100M	10.00	71.0	76.0	4.0	4.5
TPSPA0630-120M	12.00	85.0	98.0	3.0	4.2
TPSPA0630-150M	15.00	98.0	115.0	3.0	3.8
TPSPA0630-220M	22.00	165.0	189.0	1.5	3.1
TPSPA0630-330M	33.00	225.0	257.0	1.0	2.9

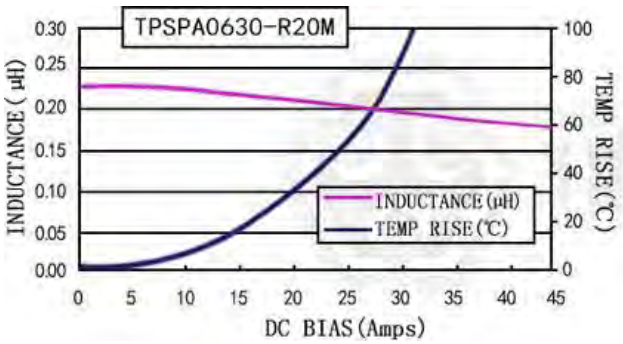
Note:

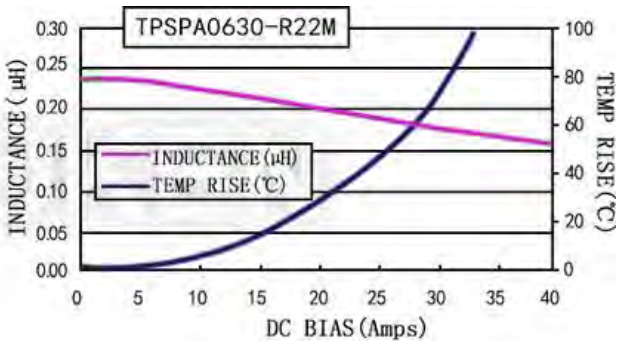
- Test frequency at 100KHZ,0.1Vrms.
- Isat:DC current at which the inductance drops 30% from its value without current.
- Irms:Current that causes a 40°C temperature rise from 25°C ambient.

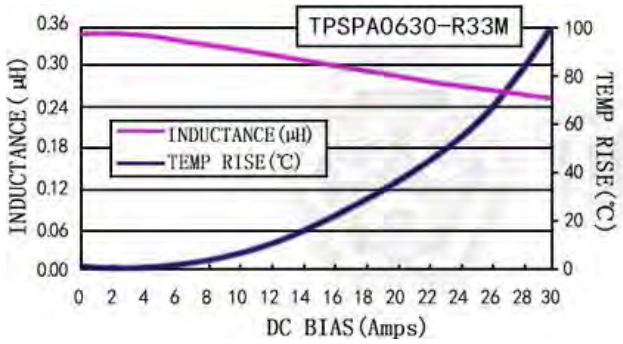
Current characteristics TPSPA0630-***M Series

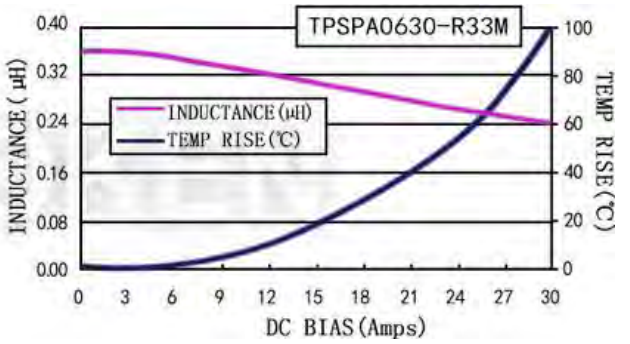


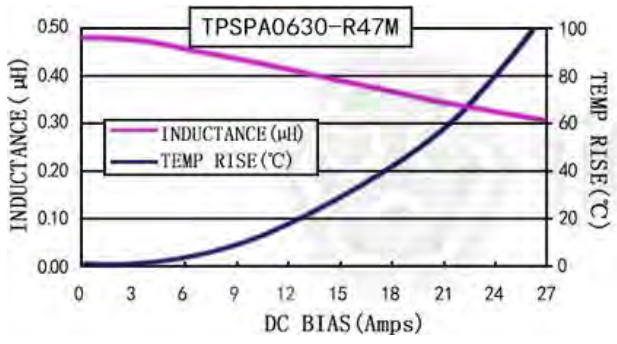


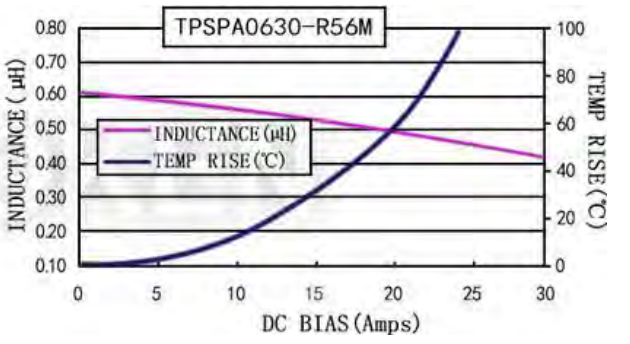




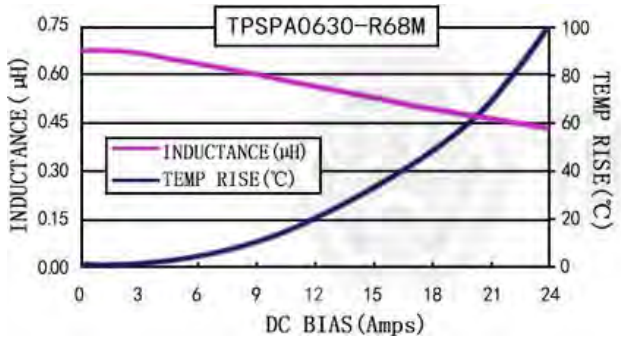


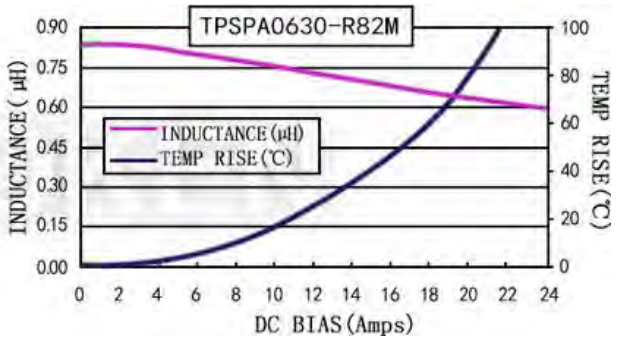


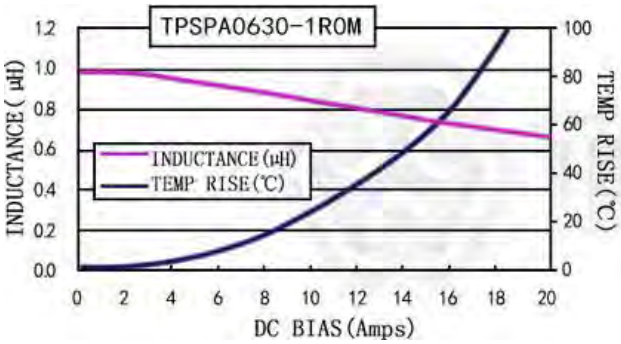


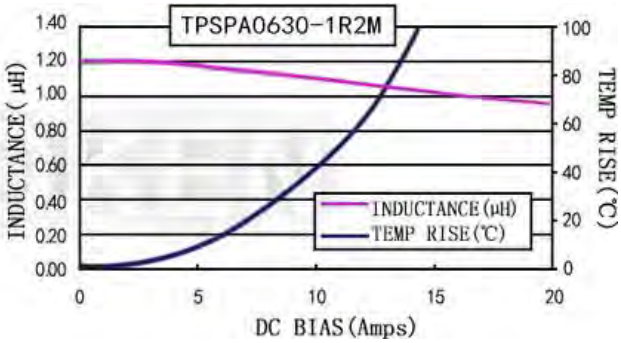


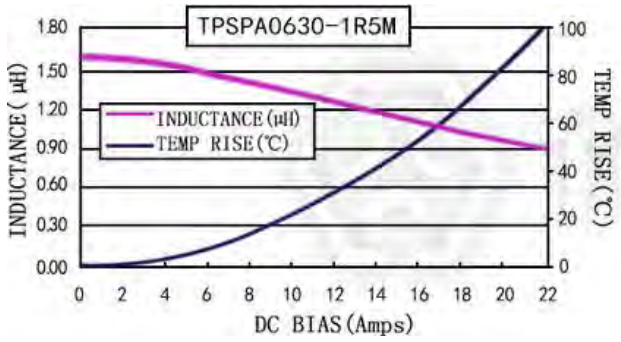
Current characteristics TPSPA0630-***M Series

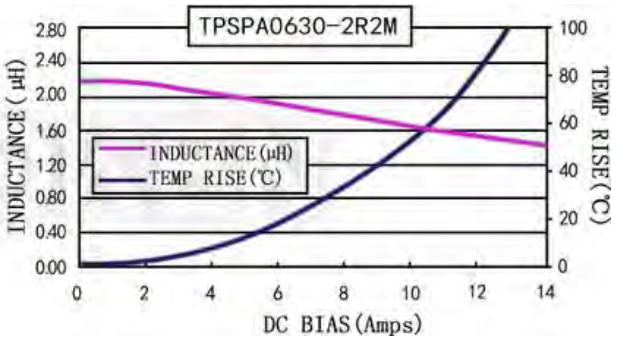


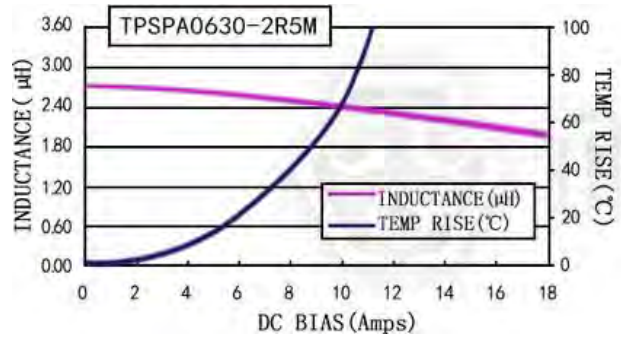


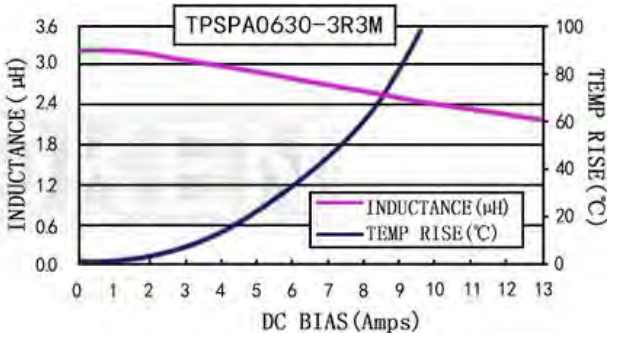




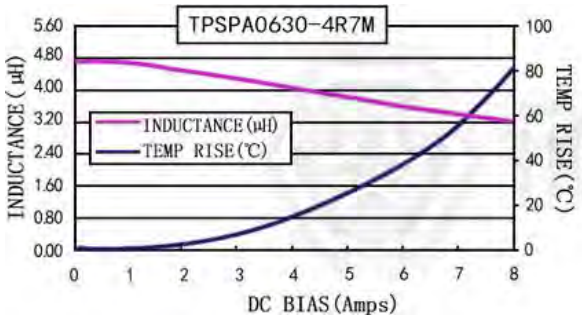


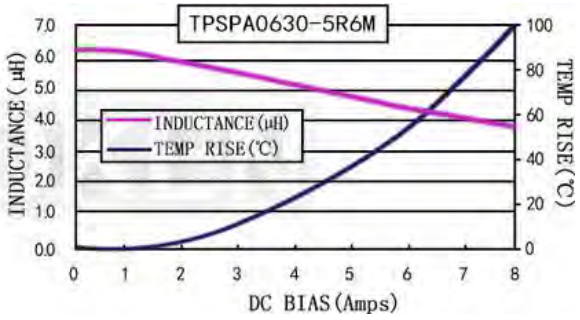


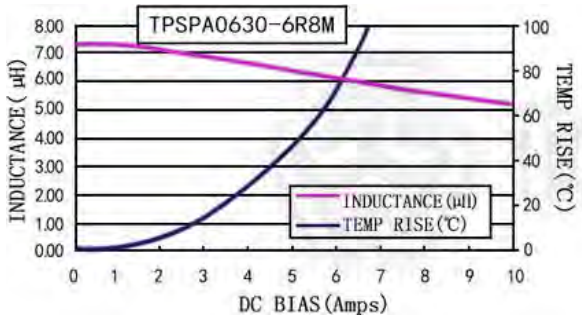


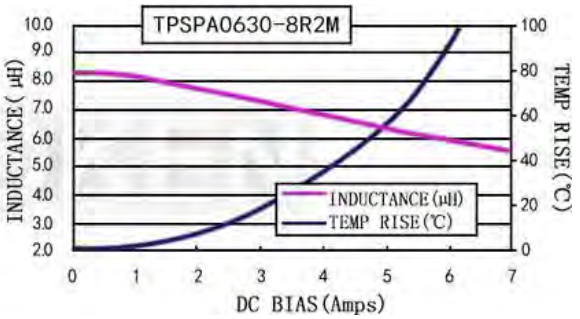


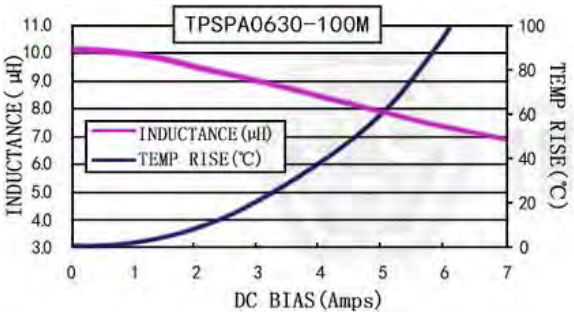
Current characteristics TPSPA0630-***M Series

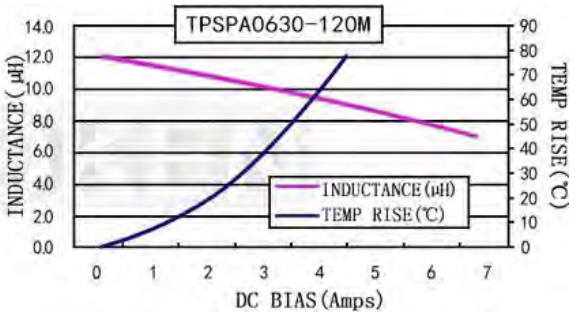


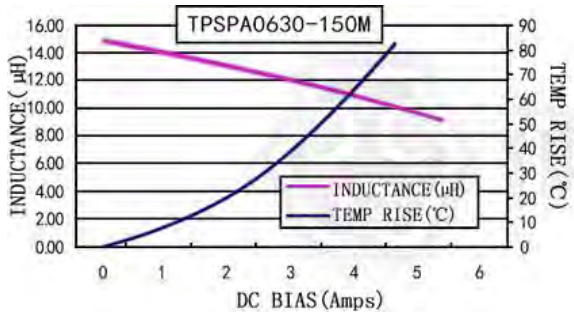


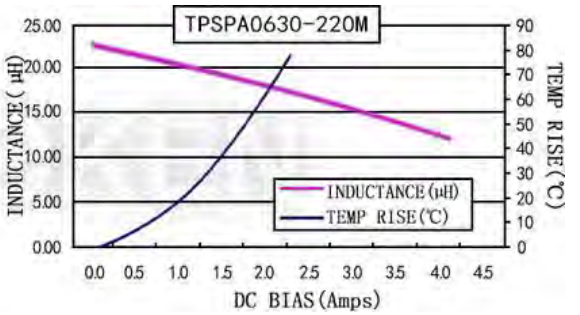


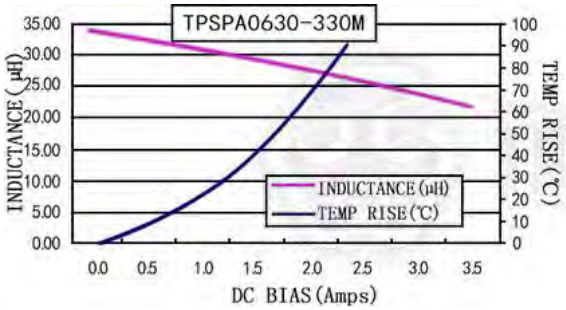












characteristics TPSPA0630-*M Series**

0650

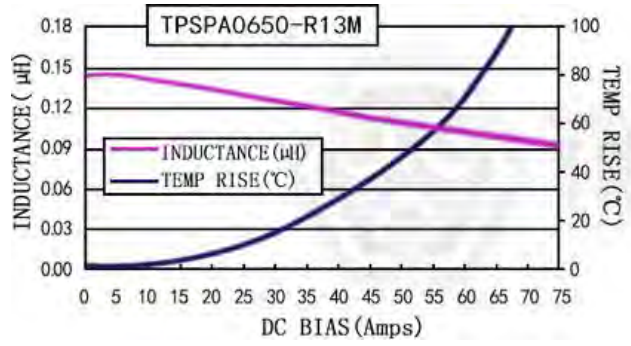
Electrical Characteristics (TPSPA0650)

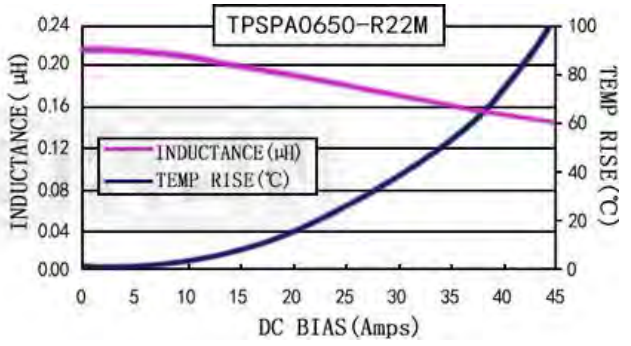
Part Number	L0 Inductance (μH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA0650-R13M	0.13	1.0	1.2	42.0	48.0
TPSPA0650-R22M	0.22	1.1	1.3	30.0	35.0
TPSPA0650-R36M	0.36	2.7	3.1	21.0	25.0
TPSPA0650-R40M	0.40	3.2	3.5	20.0	23.0
TPSPA0650-R47M	0.47	3.3	3.8	20.0	21.0
TPSPA0650-R56M	0.56	3.4	3.6	20.0	18.0
TPSPA0650-R68M	0.68	3.9	4.2	18.0	16.0
TPSPA0650-R82M	0.82	4.6	4.9	16.5	15.0
TPSPA0650-1R0M	1.00	5.6	6.5	12.0	13.0
TPSPA0650-1R2M	1.20	6.0	7.5	11.0	11.0
TPSPA0650-1R5M	1.50	7.0	8.5	10.0	10.0
TPSPA0650-2R2M	2.20	11.2	12.5	9.5	10.0
TPSPA0650-3R3M	3.30	19.9	20.9	8.5	9.0
TPSPA0650-4R7M	4.70	26.0	29.0	6.0	8.0
TPSPA0650-5R6M	5.60	31.5	34.4	6.0	7.0
TPSPA0650-6R8M	6.80	35.0	40.0	5.5	7.0
TPSPA0650-8R2M	8.20	40.0	43.0	5.5	6.5
TPSPA0650-100M	10.00	48.0	55.0	4.5	6.0
TPSPA0650-120M	12.00	58.0	65.0	4.0	5.0
TPSPA0650-150M	15.00	78.0	85.0	3.1	4.0
TPSPA0650-180M	18.00	83.0	105.0	3.0	3.5
TPSPA0650-220M	22.00	110.0	130.0	2.6	3.5
TPSPA0650-330M	33.00	160.0	200.0	2.3	3.0
TPSPA0650-470M	47.00	250.0	290.0	2.0	2.8

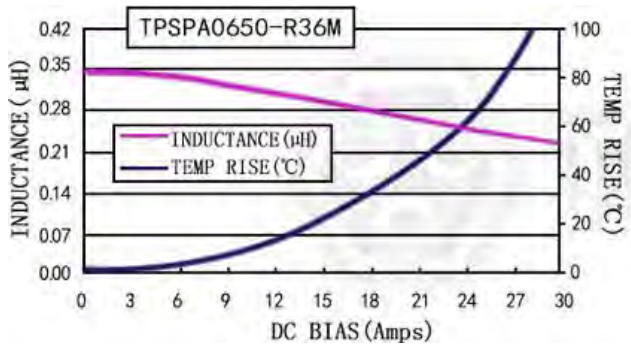
Note:

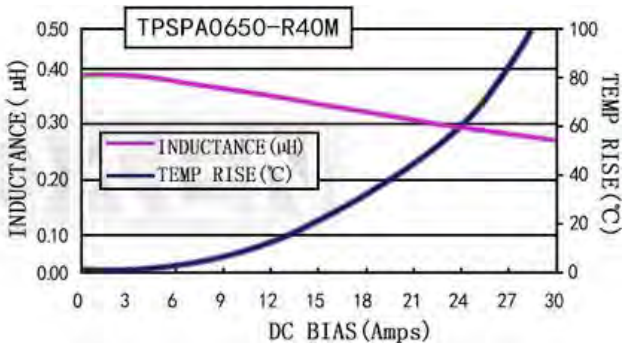
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

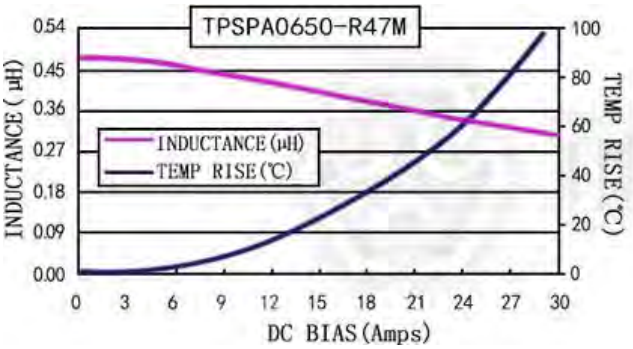
Current characteristics TPSPA0650-***M Series

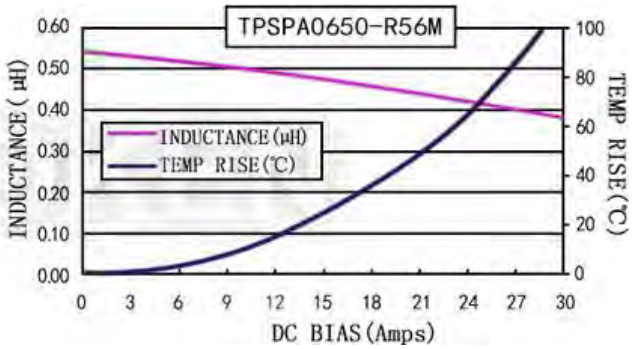


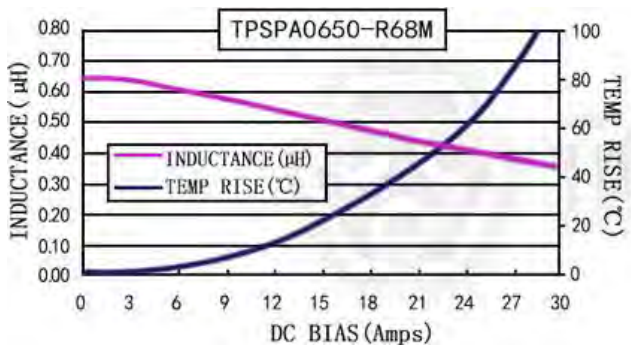


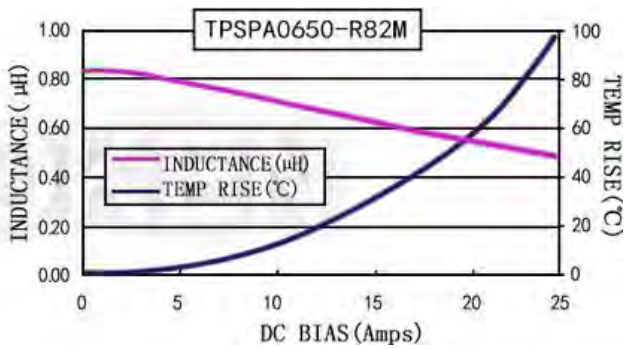




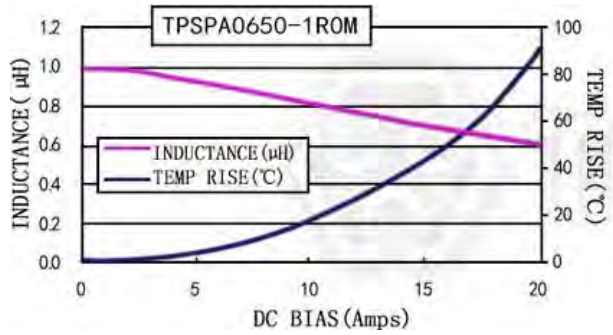


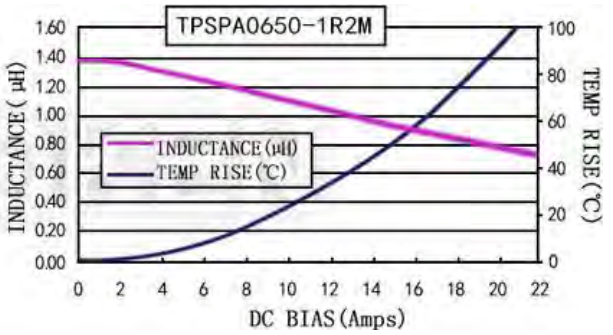


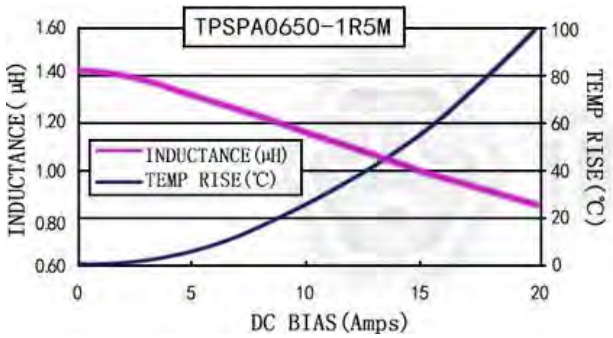


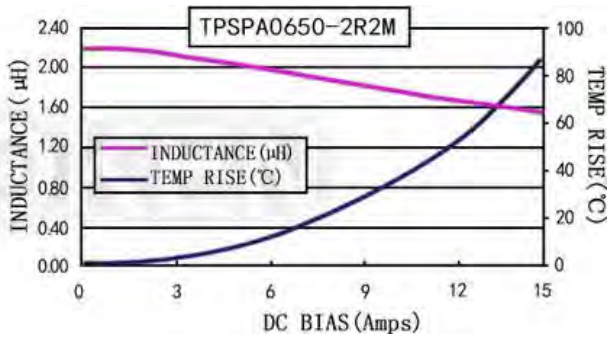


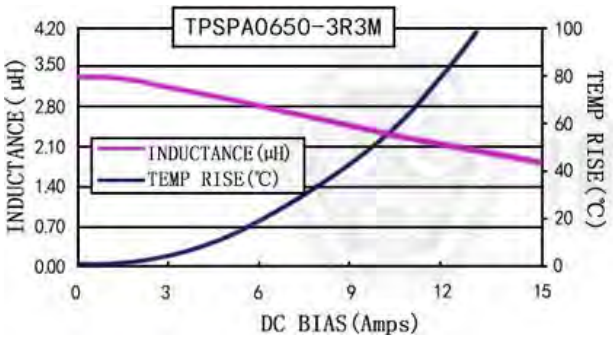
Current characteristics TPSPA0650-***M Series

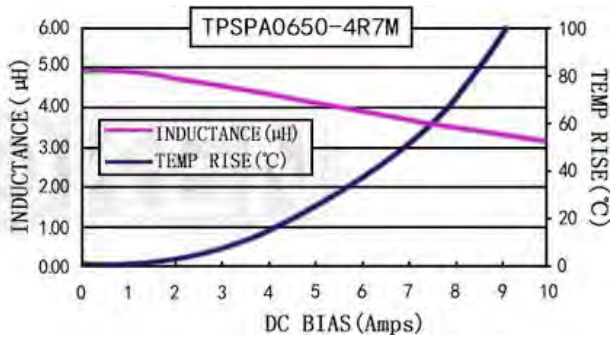


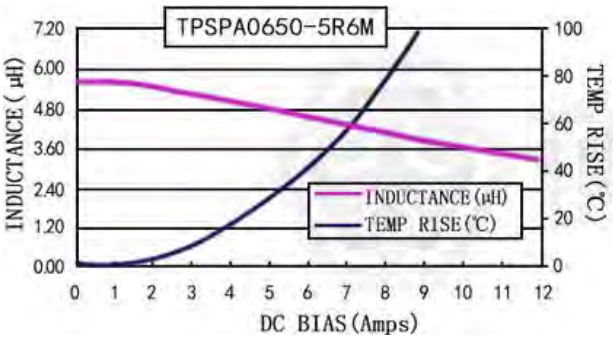


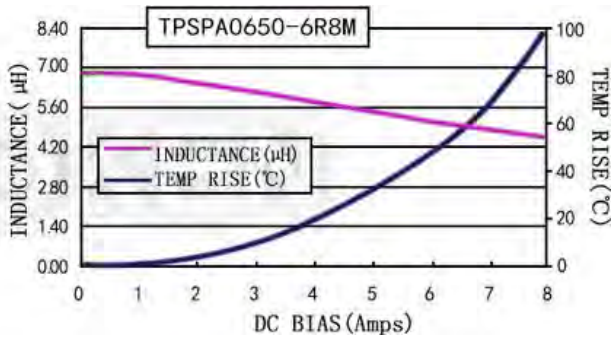




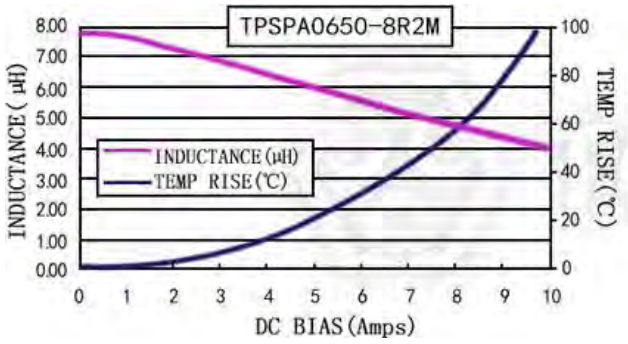


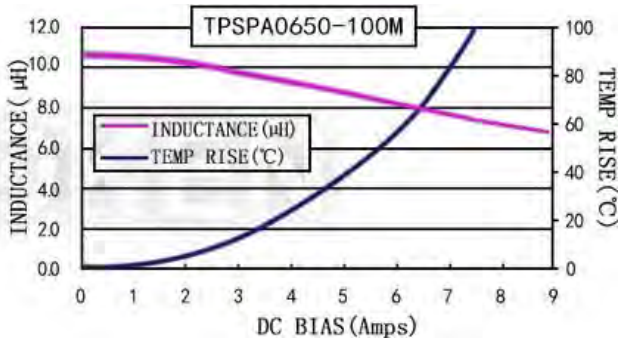


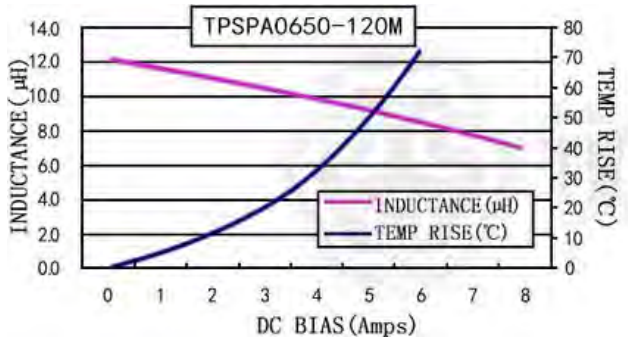


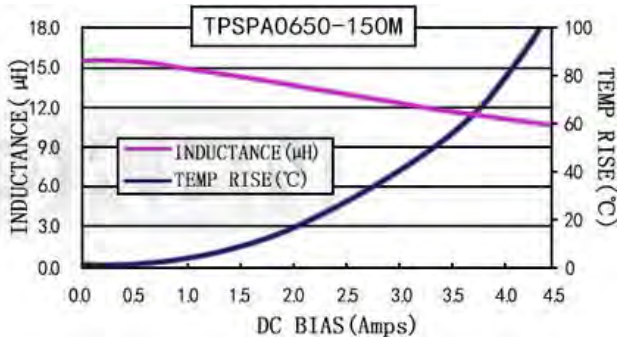


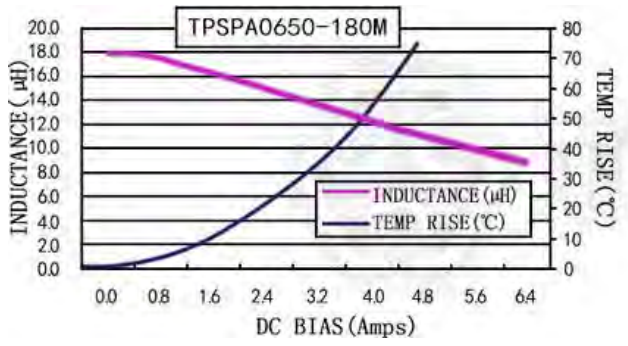
Current characteristics TPSPA0650-***M Series

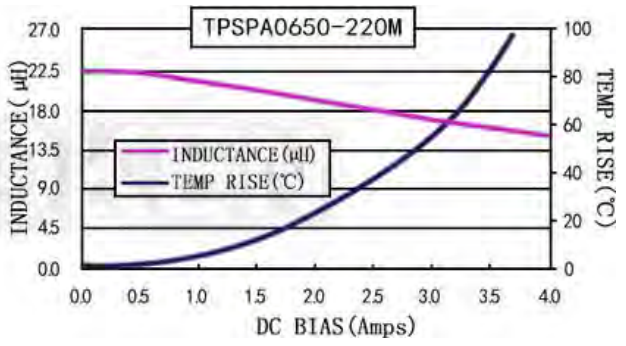


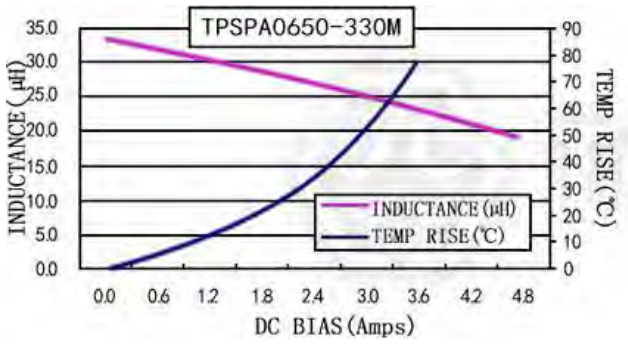


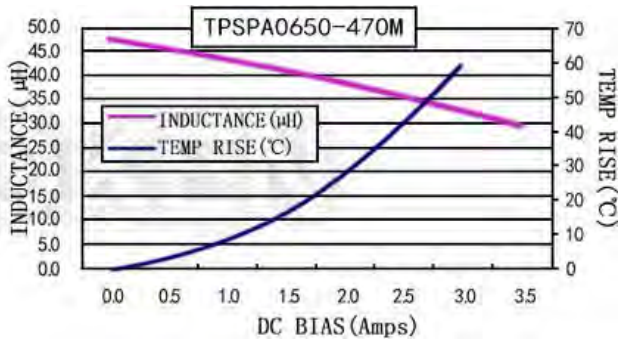












characteristics TPSPA0650-*M Series**

1030

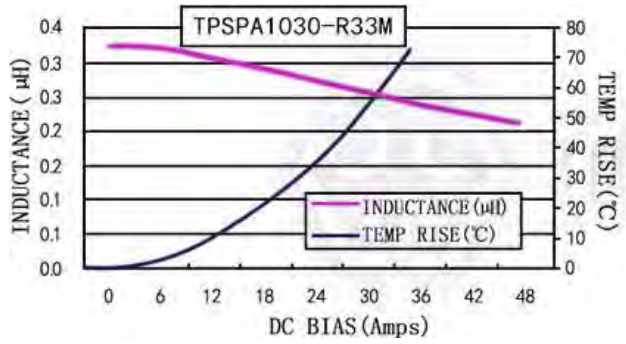
Electrical Characteristics (TPSPA1030)

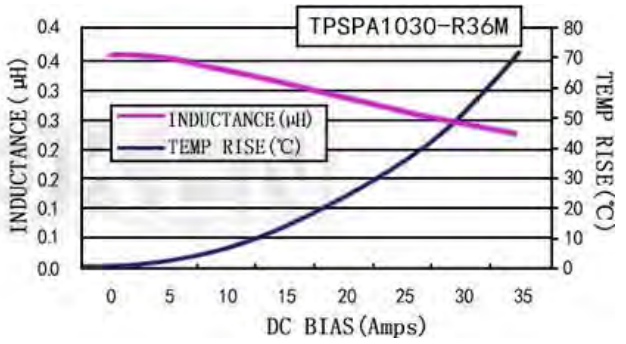
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1030-R33M	0.33	1.3	1.6	23.0	32.0
TPSPA1030-R36M	0.36	1.3	1.6	23.0	28.0
TPSPA1030-R47M	0.47	2.1	2.5	23.0	26.0
TPSPA1030-R56M	0.56	2.4	3.0	22.0	24.0
TPSPA1030-R68M	0.68	2.9	3.4	21.0	23.0
TPSPA1030-1R0M	1.00	5.5	6.0	15.0	21.0
TPSPA1030-1R5M	1.50	6.5	7.5	12.0	18.0
TPSPA1030-2R2M	2.20	8.0	9.0	11.0	14.0
TPSPA1030-3R3M	3.30	14.5	16.0	9.0	12.0
TPSPA1030-4R7M	4.70	20.5	22.5	7.0	10.0
TPSPA1030-5R6M	5.60	27.0	30.0	6.0	10.0
TPSPA1030-6R8M	6.80	30.0	35.0	5.5	7.5
TPSPA1030-8R2M	8.20	35.0	45.0	5.0	7.0
TPSPA1030-100M	10.00	50.0	55.0	4.5	6.5
TPSPA1030-150M	15.00	59.0	65.0	4.0	5.0
TPSPA1030-220M	22.00	90.0	99.0	3.0	4.0
TPSPA1030-330M	33.00	135.0	145.0	2.0	3.0

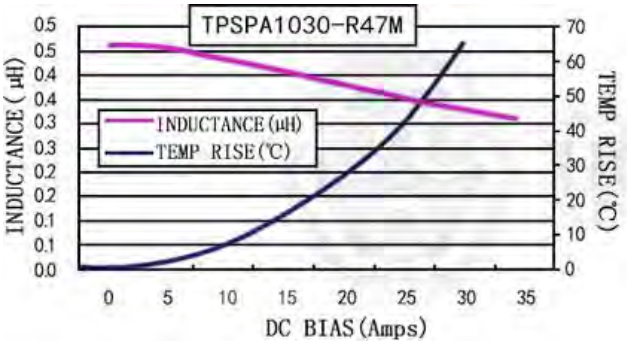
Note:

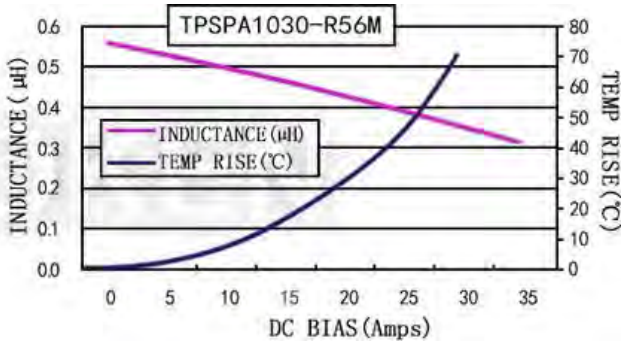
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

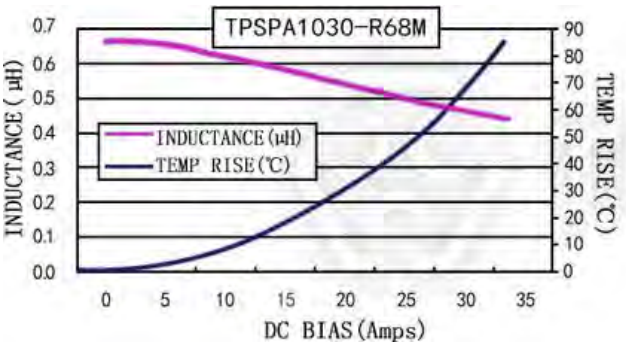
Current characteristics TPSPA1030-***M Series

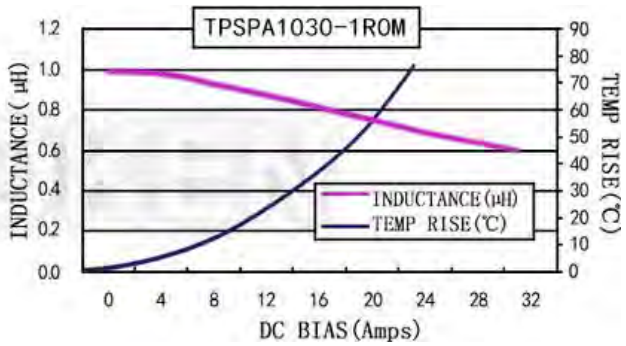


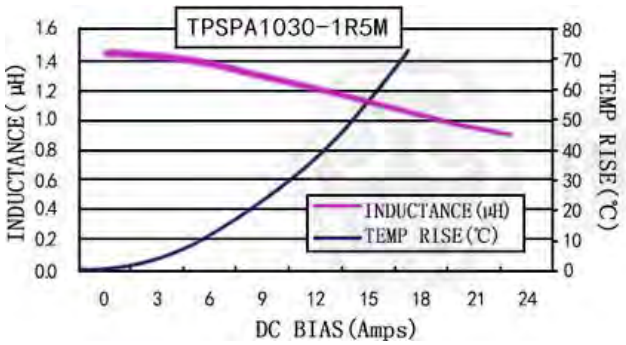


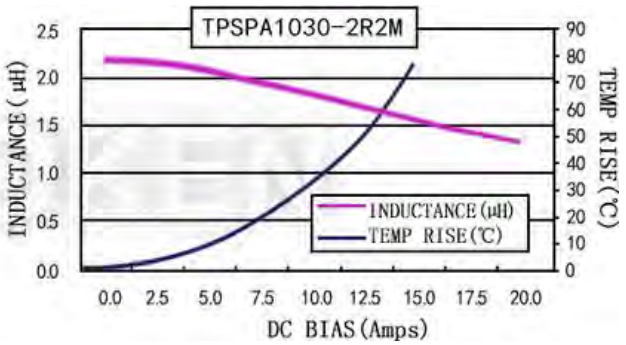




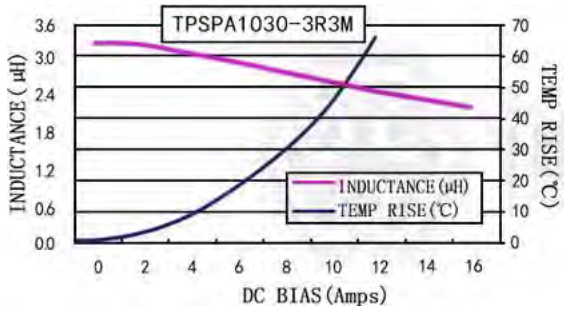


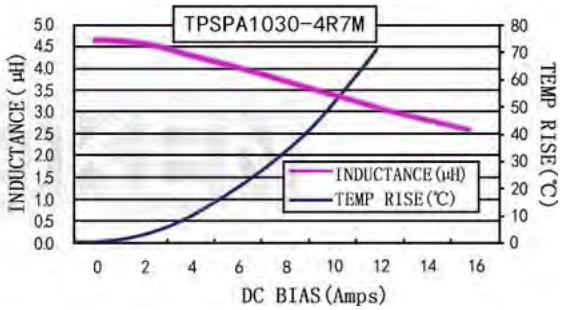


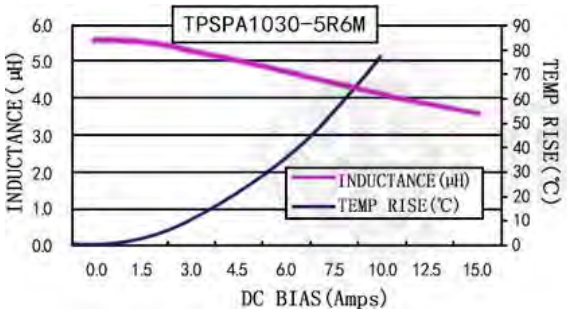


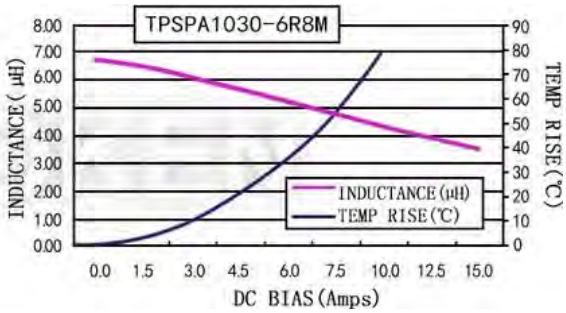


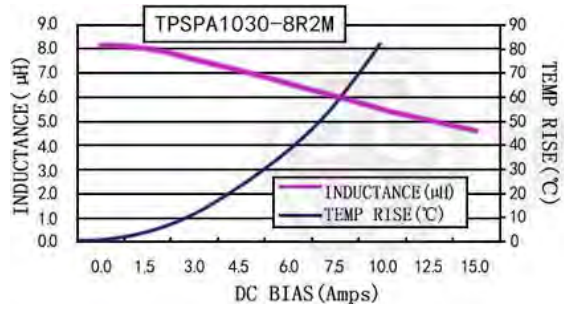
Current characteristics TPSPA1030-***M Series

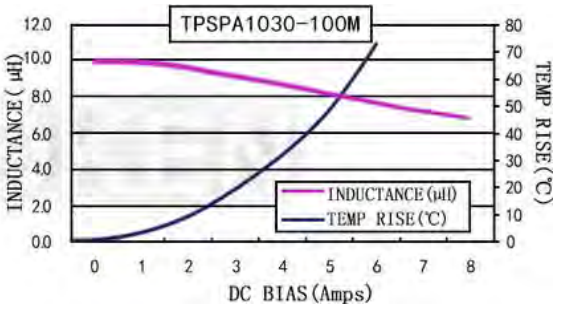


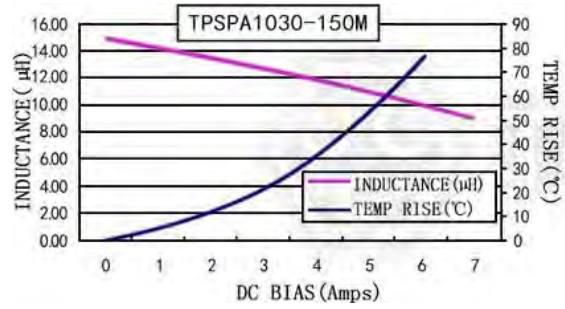


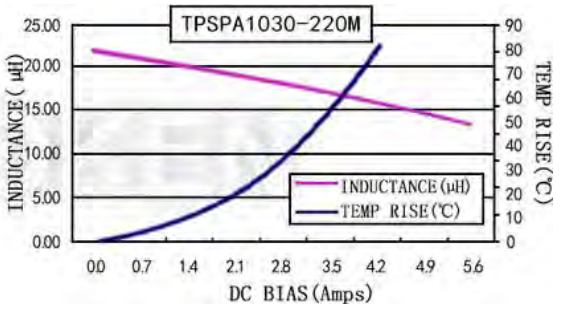


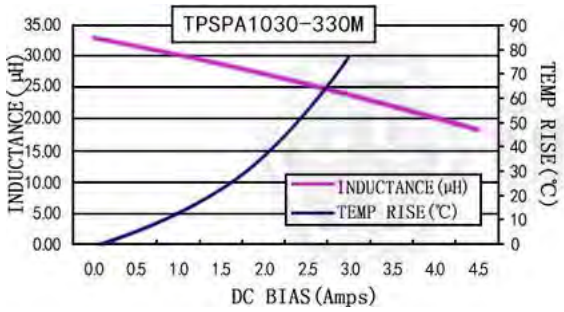












characteristics TPSPA1030-*M Series**

1040

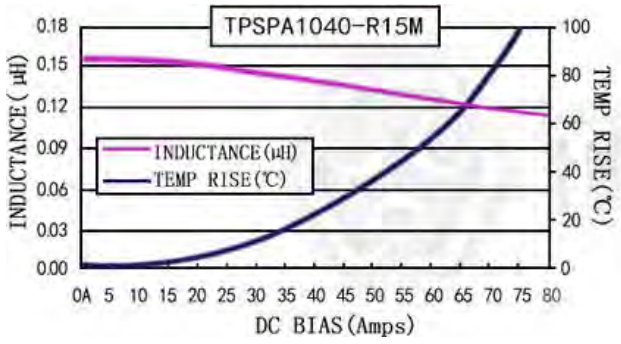
Electrical Characteristics (TPSPA1040)

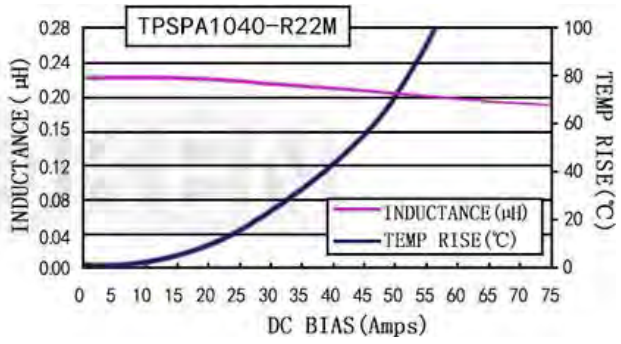
Part Number	L0 Inductance (μH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1040-R15M	0.15	0.5	0.65	40.0	75.0
TPSPA1040-R22M	0.22	0.9	1.0	35.0	60.0
TPSPA1040-R36M	0.36	1.05	1.2	25.0	50.0
TPSPA1040-R39M	0.39	1.1	1.2	25.0	45.0
TPSPA1040-R47M	0.47	1.53	1.68	24.0	35.0
TPSPA1040-R56M	0.56	1.6	1.8	23.5	33.0
TPSPA1040-R68M	0.68	2.1	2.4	23.0	30.0
TPSPA1040-1R0M	1.00	3.0	3.3	18.0	28.0
TPSPA1040-1R5M	1.50	3.8	4.2	15.0	24.0
TPSPA1040-1R8M	1.80	5.0	5.8	13.0	15.0
TPSPA1040-2R0M	2.00	6.0	6.9	12.0	14.0
TPSPA1040-2R2M	2.20	6.0	7.0	12.0	18.0
TPSPA1040-3R3M	3.30	10.8	11.8	10.0	16.0
TPSPA1040-4R7M	4.70	17.0	20.0	8.5	13.0
TPSPA1040-5R6M	5.60	20.0	23.0	8.0	11.0
TPSPA1040-6R8M	6.80	22.5	25.0	7.0	10.0
TPSPA1040-8R2M	8.20	25.0	27.0	6.0	9.0
TPSPA1040-100M	10.00	27.0	30.0	5.5	8.5
TPSPA1040-120M	12.00	36.0	42.0	5.0	8.0
TPSPA1040-150M	15.00	40.0	45.0	4.5	7.0
TPSPA1040-220M	22.00	60.0	66.0	4.0	5.5
TPSPA1040-330M	33.00	85.0	92.0	3.5	5.0
TPSPA1040-470M	47.00	130.0	145.0	2.8	3.7
TPSPA1040-680M	68.00	186.0	205.0	2.3	3.0
TPSPA1040-820M	82.00	262.0	280.0	2.0	3.0
TPSPA1040-101M	100.00	280.0	300.0	1.5	2.0

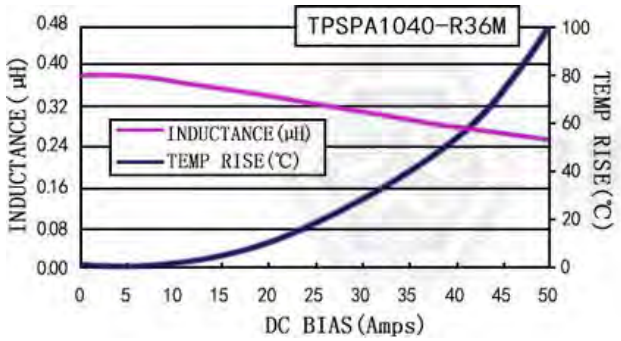
Note:

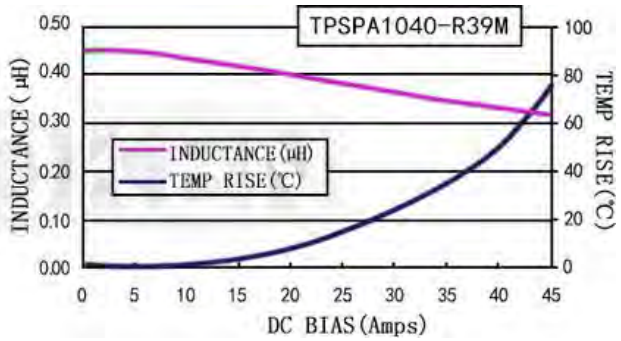
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

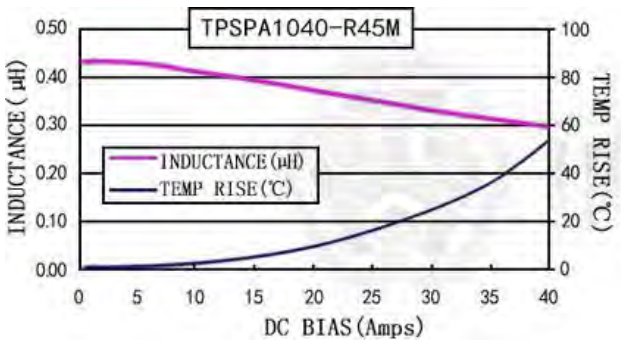
Current characteristics TPSPA1040-***M Series

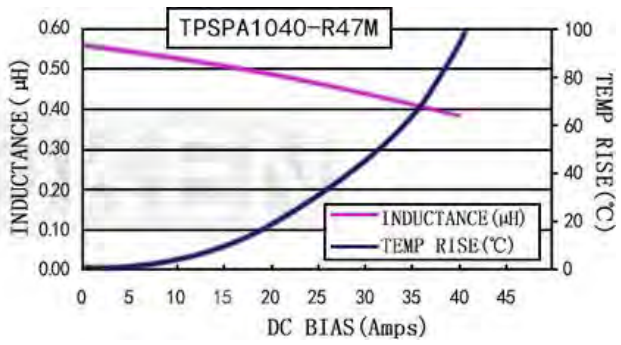


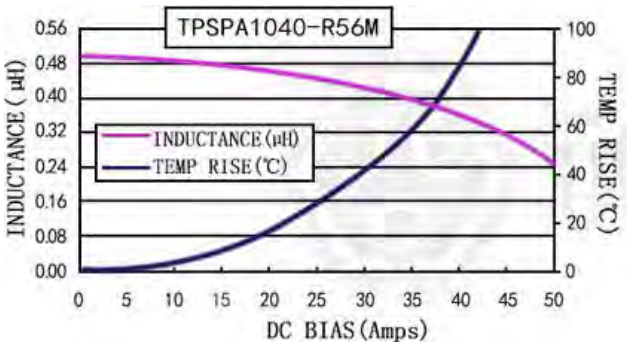


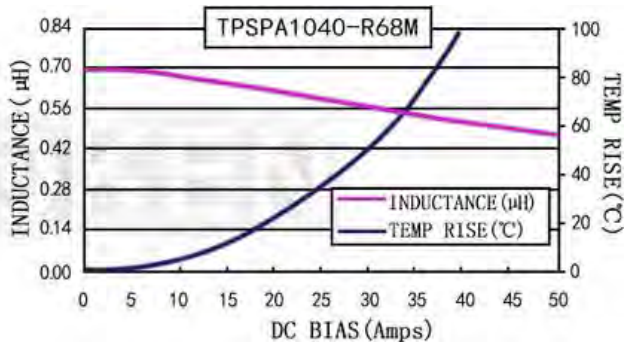




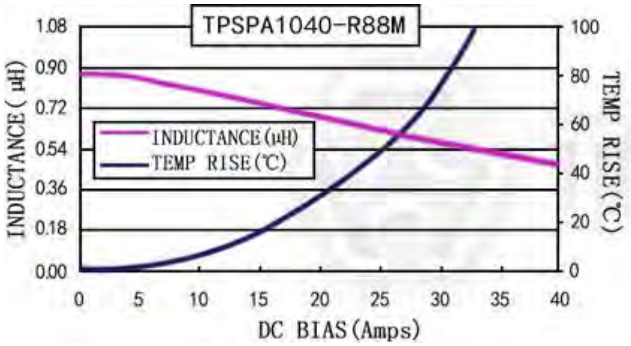


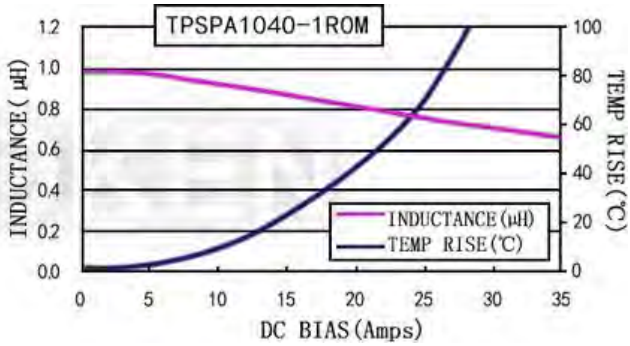


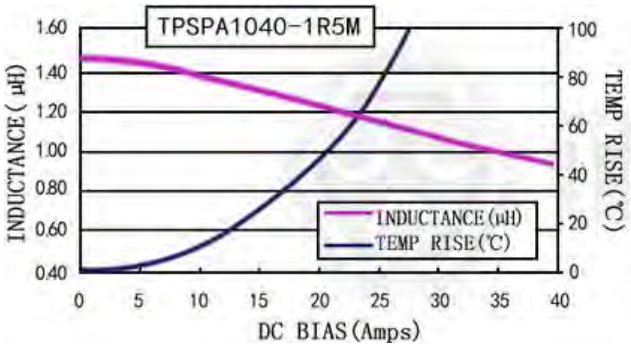


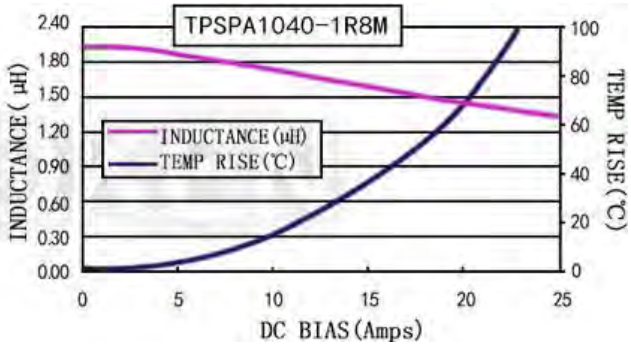


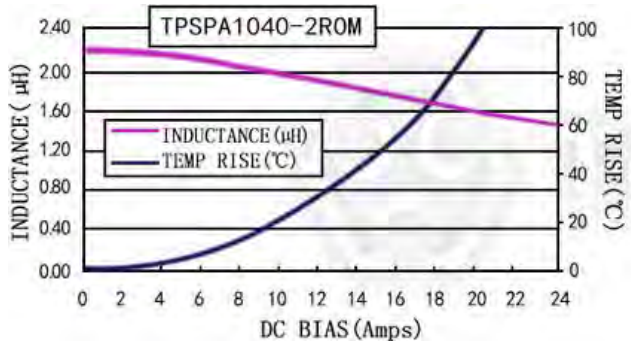
Current characteristics TPSPA1040-***M Series

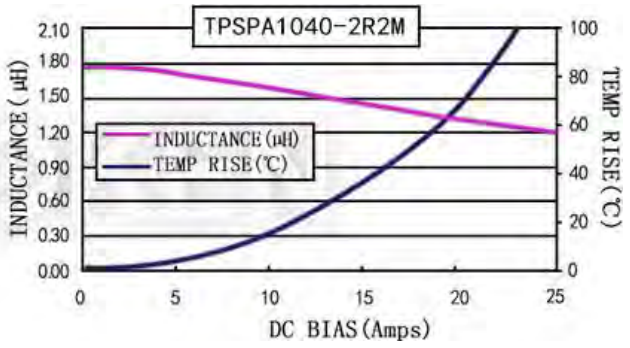


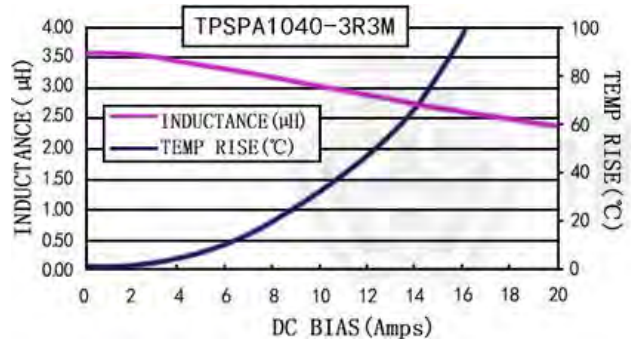


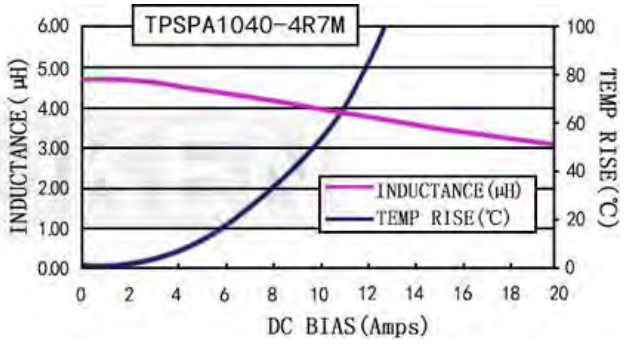




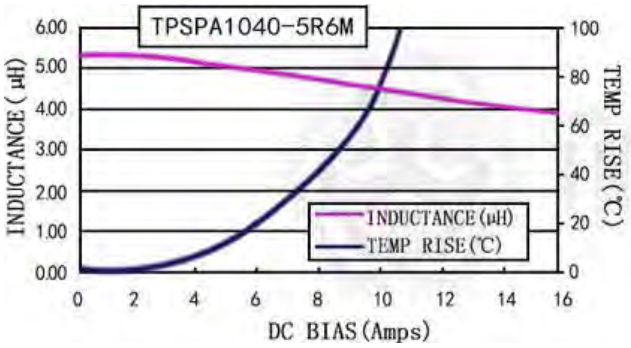


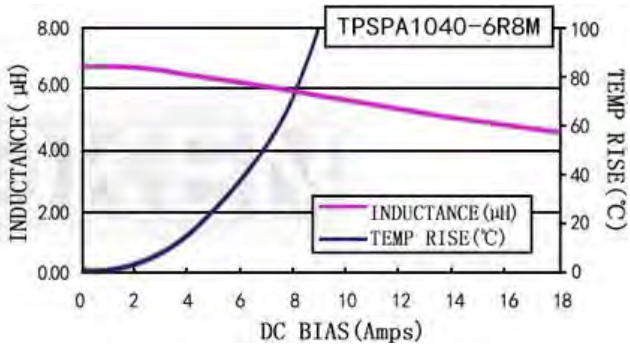


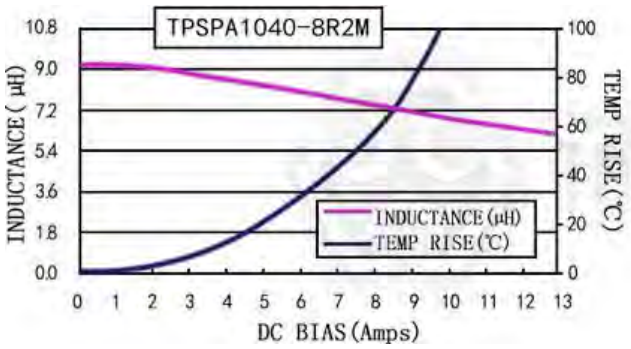


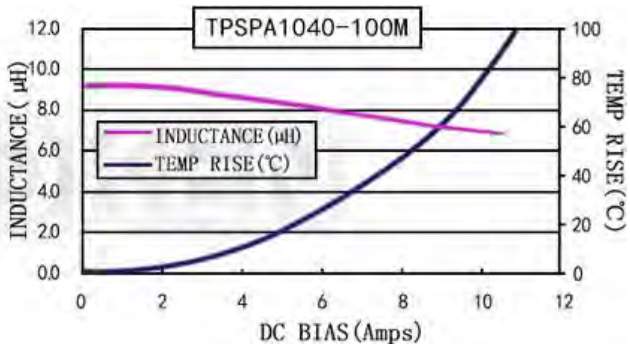


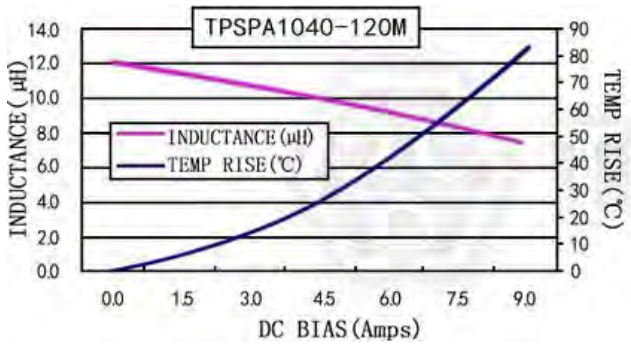
Current characteristics TPSPA1040-***M Series

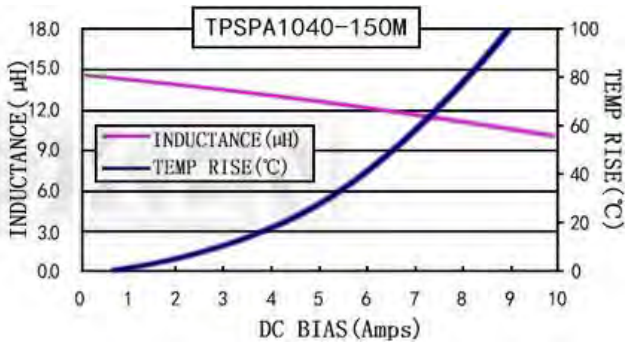


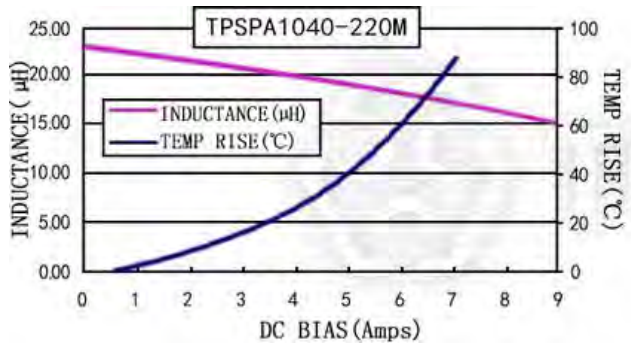


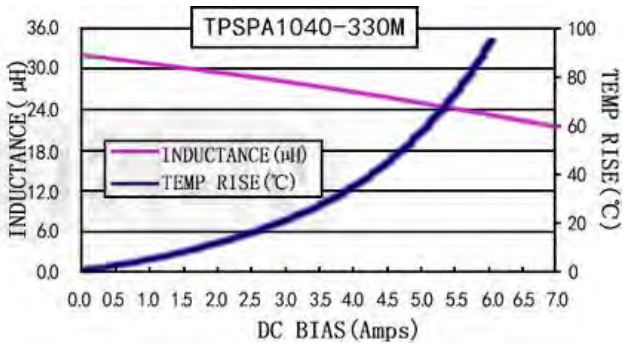




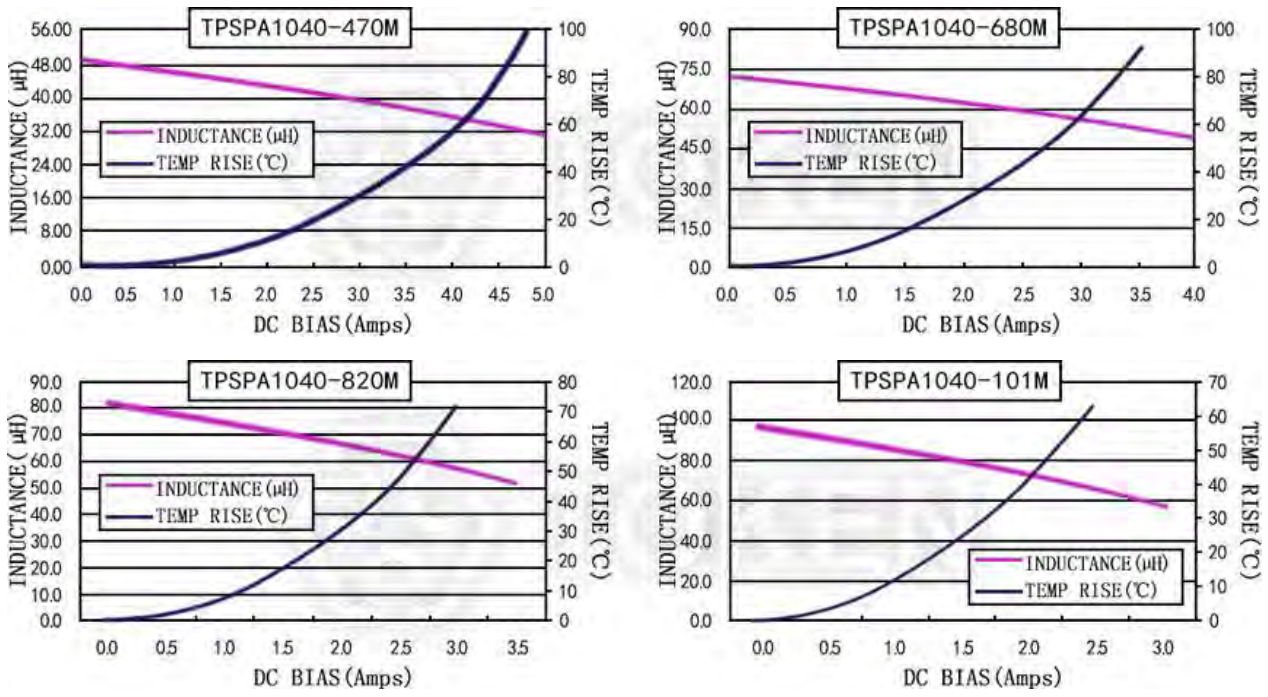








Current characteristics TPSPA1040-***M Series



characteristics TPSPA1040-*M Series**

1050

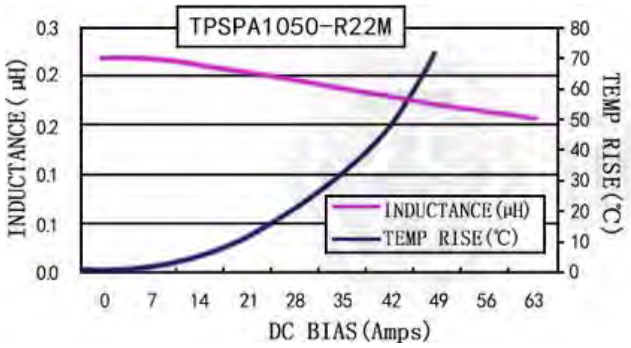
Electrical Characteristics (TPSPA1050)

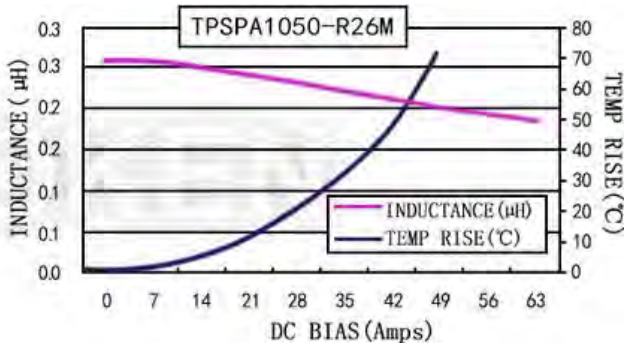
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1050-R22M	0.22	0.68	0.8	37.0	60.0
TPSPA1050-R26M	0.26	0.9	1.0	35.0	60.0
TPSPA1050-1R0M	1.00	2.3	2.6	19.0	29.0
TPSPA1050-1R2M	1.20	2.8	3.1	18.0	28.0
TPSPA1050-1R5M	1.50	3.3	3.8	16.0	25.0
TPSPA1050-2R2M	2.20	5.4	6.0	13.0	20.0
TPSPA1050-3R3M	3.30	10.8	11.8	10.0	18.0
TPSPA1050-4R7M	4.70	12.5	15.0	9.0	15.0
TPSPA1050-6R8M	6.80	16.0	18.5	8.5	14.0
TPSPA1050-100M	10.00	25.0	28.0	6.0	10.0
TPSPA1050-220M	22.00	45.0	50.0	5.5	6.0
TPSPA1050-330M	33.00	70.0	76.0	4.5	5.0

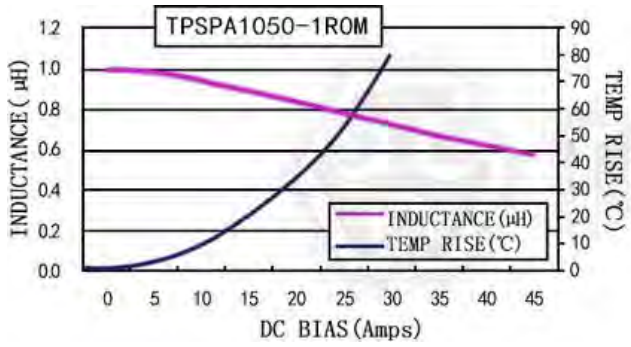
Note:

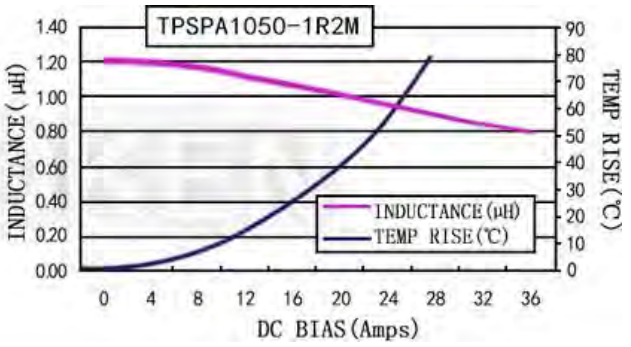
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

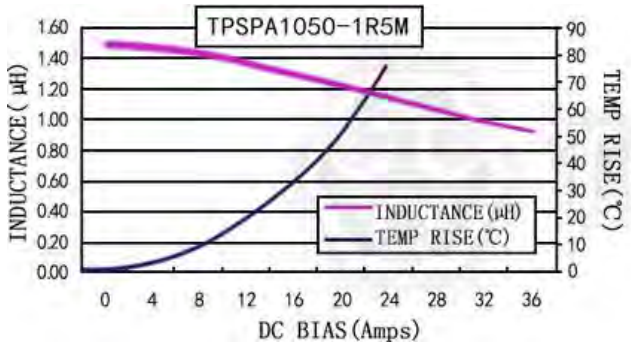
Current characteristics TPSPA1050-***M Series

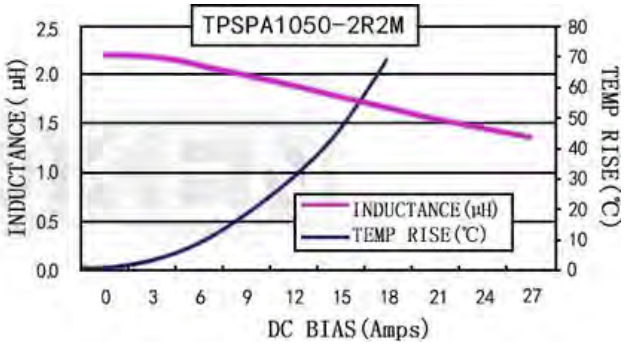


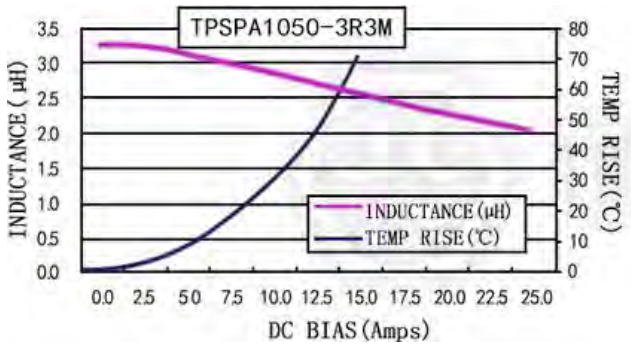


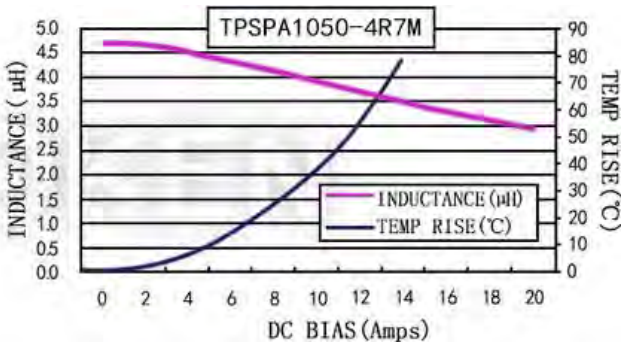




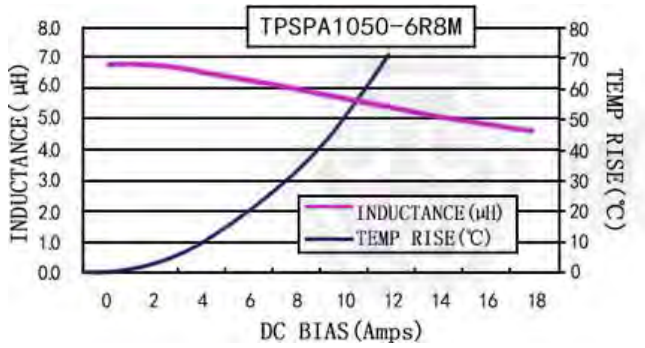


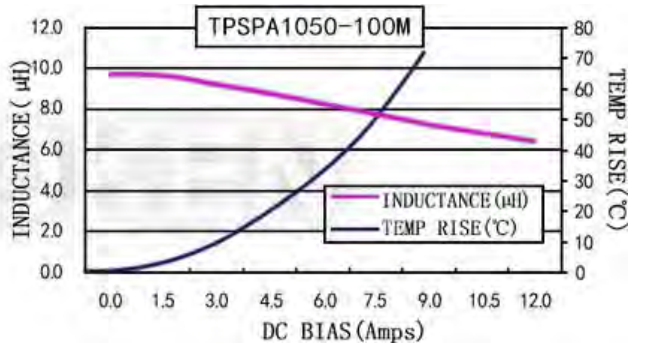


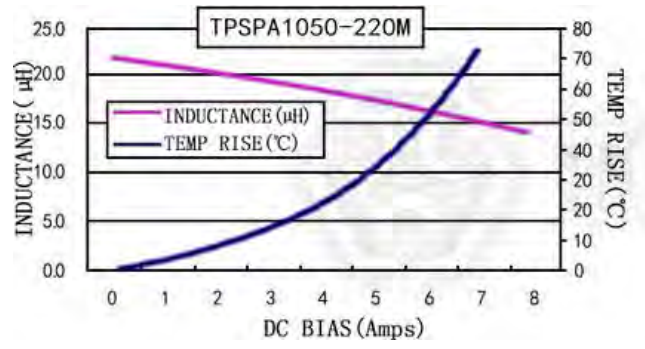


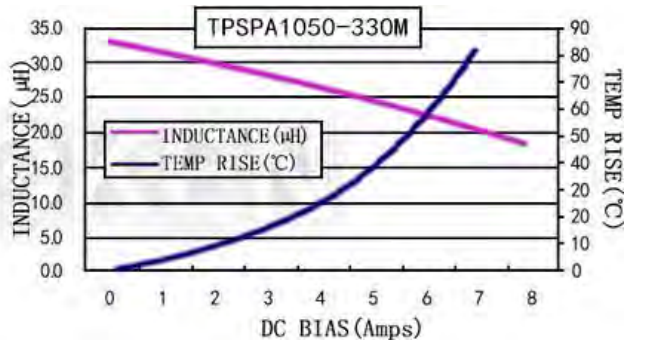


Current characteristics TPSPA1050-***M Series









characteristics TPSPA1050-*M Series**

1335

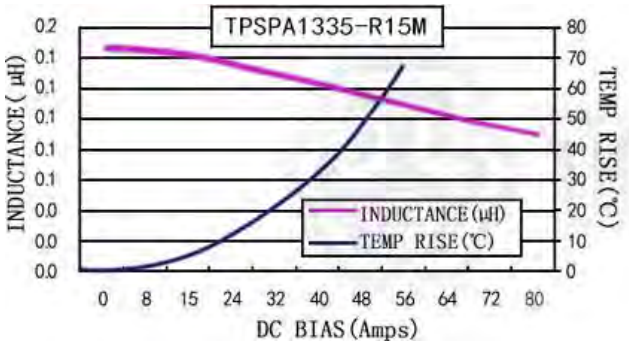
Electrical Characteristics (TPSPA1335)

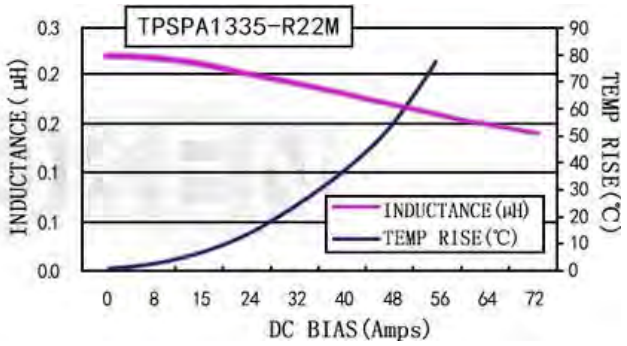
Part Number	L0 Inductance (μH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1335-R15M	0.15	0.7	0.85	39.0	60.0
TPSPA1335-R22M	0.22	1.1	1.3	38.0	57.0
TPSPA1335-R33M	0.33	1.3	1.5	36.5	52.0
TPSPA1335-R39M	0.39	1.3	1.5	34.0	50.0
TPSPA1335-R47M	0.47	1.7	2.0	32.0	47.0
TPSPA1335-R56M	0.56	1.8	2.2	29.0	43.0
TPSPA1335-R68M	0.68	2.3	2.5	28.0	41.0
TPSPA1335-R82M	0.82	2.6	3.0	25.0	36.0
TPSPA1335-1R0M	1.00	3.3	3.5	24.0	29.0
TPSPA1335-1R5M	1.50	5.1	5.5	19.0	27.0
TPSPA1335-2R2M	2.20	7.2	8.0	16.0	19.0
TPSPA1335-3R3M	3.30	10.0	12.0	13.0	14.0
TPSPA1335-4R7M	4.70	16.0	18.0	9.0	12.0
TPSPA1335-5R6M	5.60	19.0	22.0	8.0	8.0
TPSPA1335-6R8M	6.80	21.0	25.0	7.0	7.0
TPSPA1335-8R2M	8.20	25.0	30.0	6.5	6.0
TPSPA1335-100M	10.00	29.0	35.0	6.0	4.0

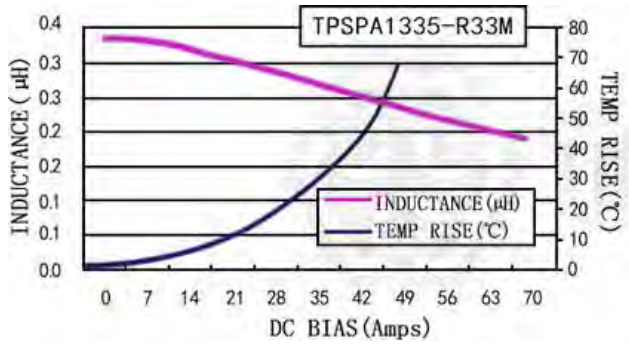
Note:

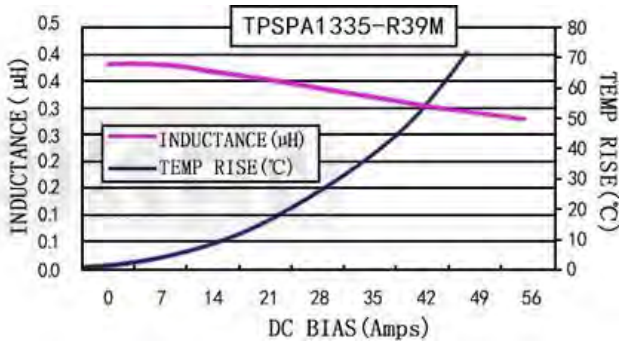
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

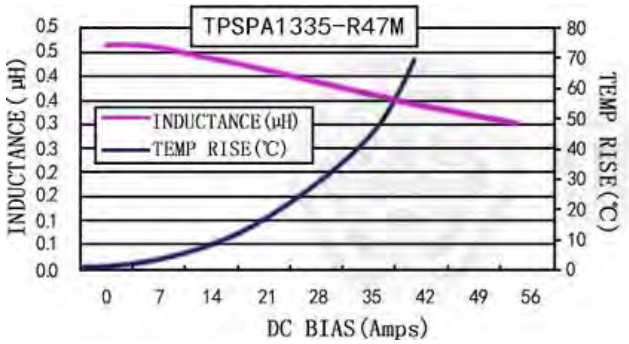
Current characteristics TPSPA1335-***M Series

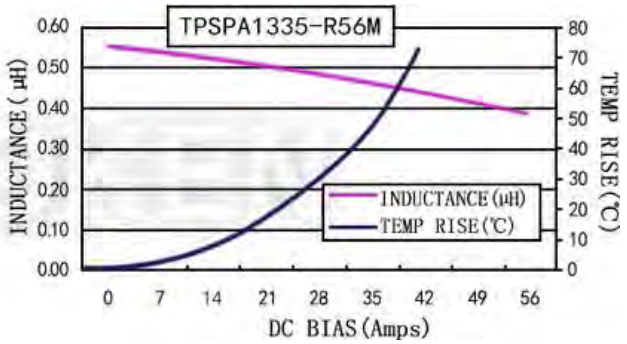


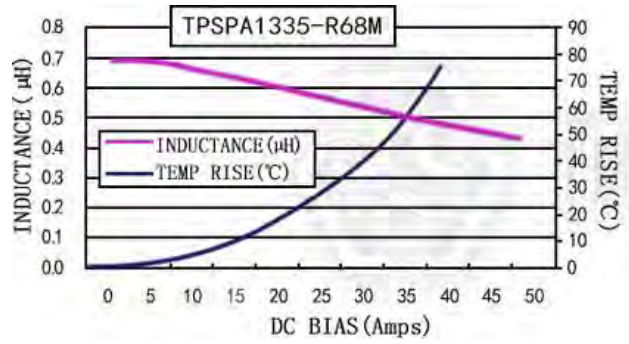


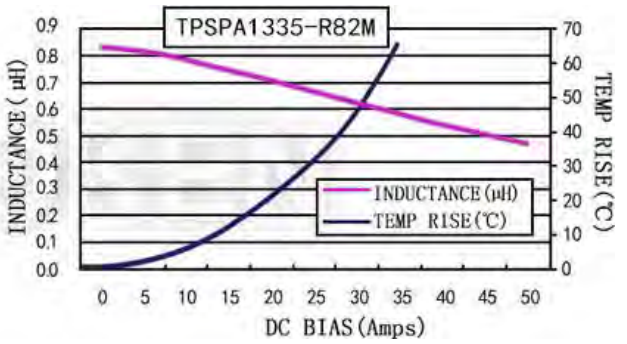




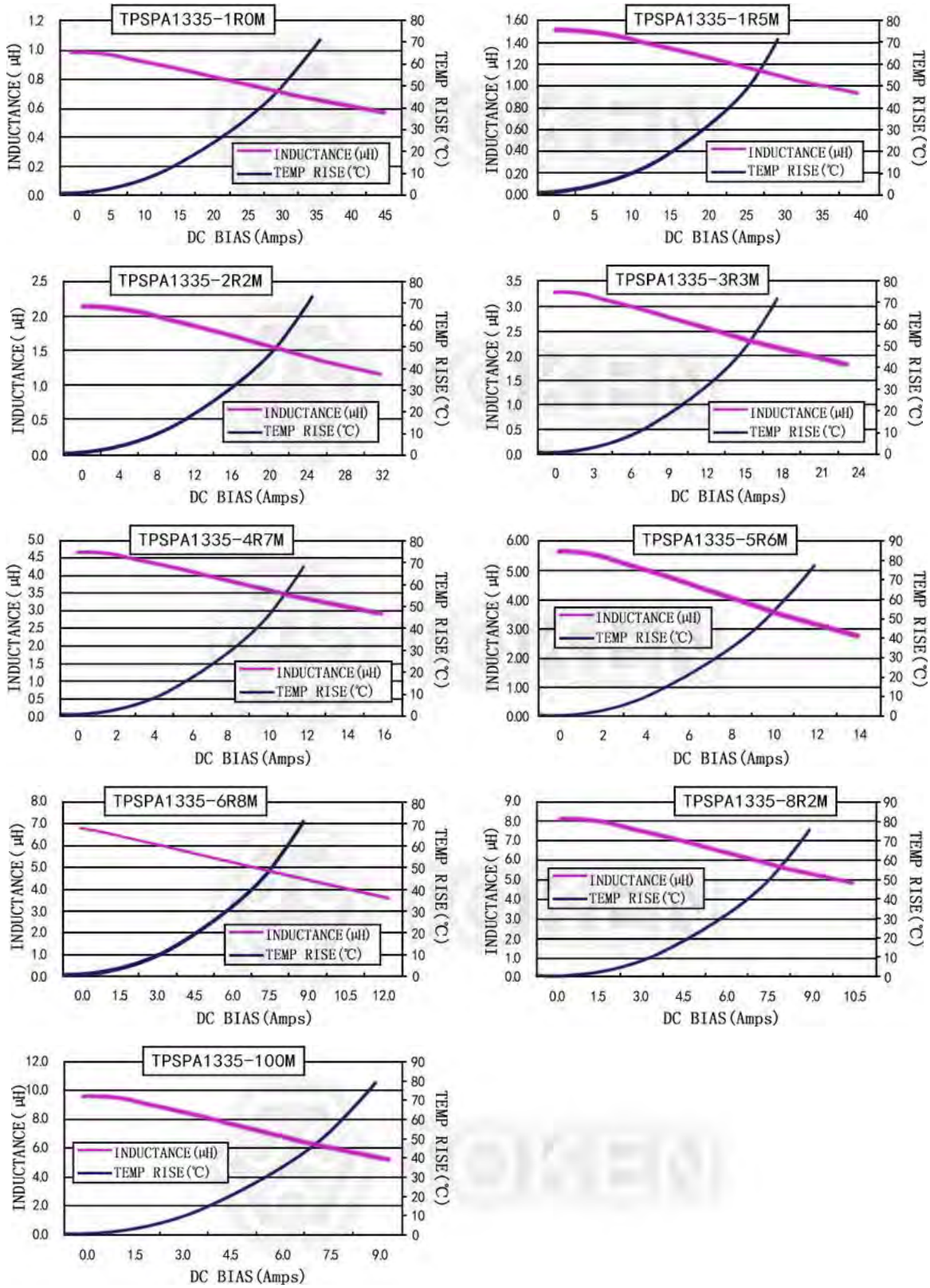








Current characteristics TPSPA1335-***M Series



characteristics TPSPA1335-***M Series

1350

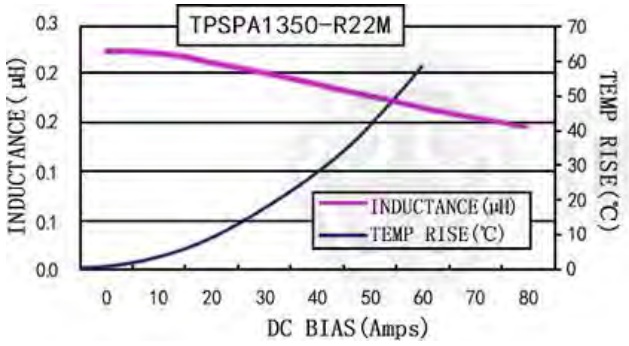
Electrical Characteristics (TPSPA1350)

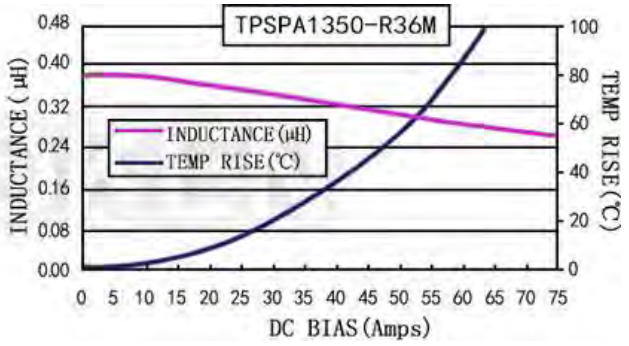
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1350-R22M	0.22	0.6	0.9	43.0	60.0
TPSPA1350-R36M	0.36	0.8	1.1	41.0	60.0
TPSPA1350-R47M	0.47	1.08	1.3	39.0	52.0
TPSPA1350-R56M	0.56	1.2	1.5	36.0	50.0
TPSPA1350-R68M	0.68	1.3	1.5	32.0	40.0
TPSPA1350-R82M	0.82	1.45	1.67	30.0	38.0
TPSPA1350-1R0M	1.00	1.9	2.2	26.0	35.0
TPSPA1350-1R5M	1.50	2.7	3.2	23.0	32.0
TPSPA1350-1R8M	1.80	2.8	3.2	23.0	27.0
TPSPA1350-2R2M	2.20	4.0	5.0	15.0	26.0
TPSPA1350-3R3M	3.30	7.5	9.0	13.0	22.0
TPSPA1350-4R7M	4.70	9.0	11.0	12.0	17.0
TPSPA1350-5R6M	5.60	13.0	15.0	11.0	16.0
TPSPA1350-6R8M	6.80	15.0	18.0	10.0	14.0
TPSPA1350-8R2M	8.20	16.0	20.0	9.0	13.0
TPSPA1350-100M	10.00	20.0	23.0	8.0	12.0
TPSPA1350-150M	15.00	28.0	32.0	5.0	10.0
TPSPA1350-220M	22.00	45.0	52.0	4.5	7.0
TPSPA1350-270M	27.00	58.0	66.0	4.0	6.3
TPSPA1350-330M	33.00	75.0	84.0	3.5	6.0
TPSPA1350-470M	47.00	100.0	120.0	3.0	5.0
TPSPA1350-680M	68.00	115.0	135.0	2.5	4.5

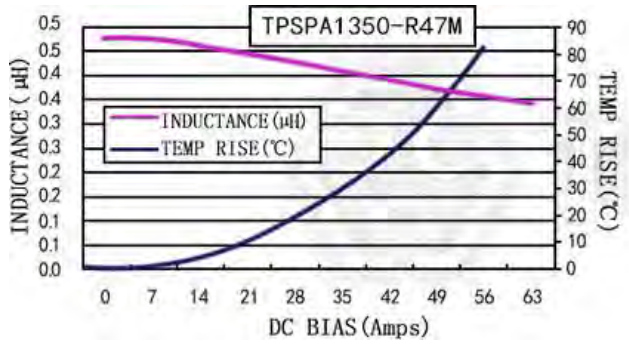
Note:

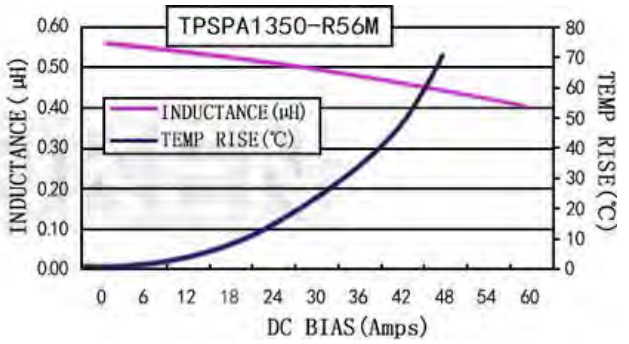
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

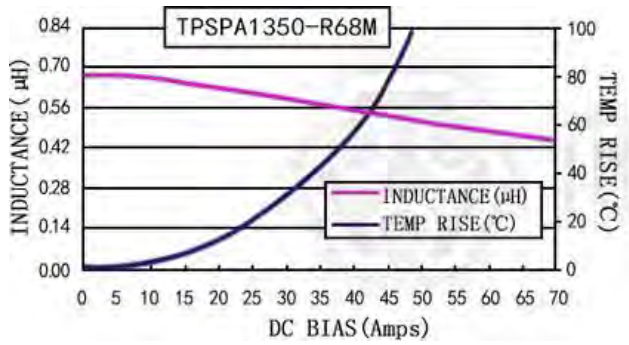
Current characteristics TPSPA1350-***M Series

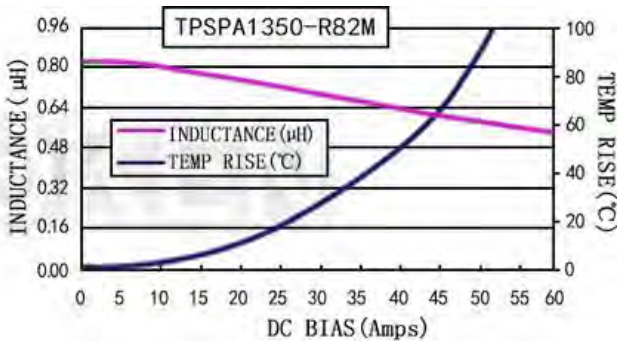


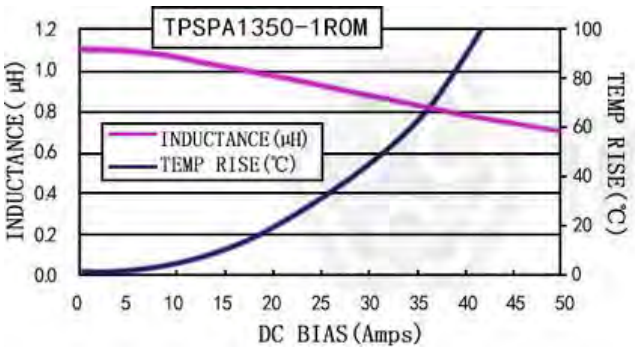


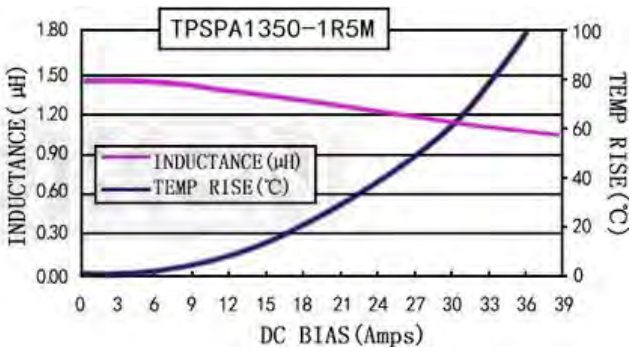




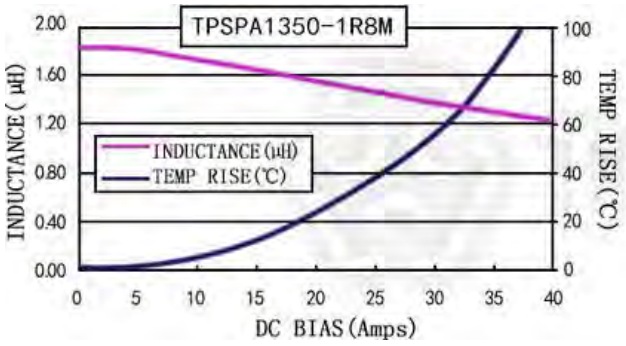


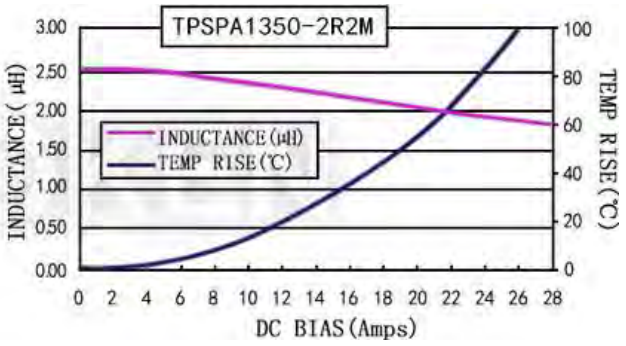


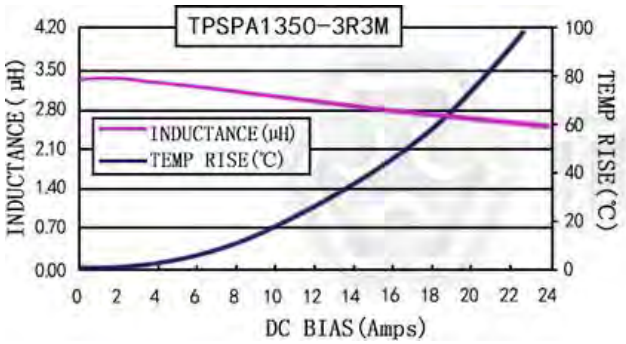


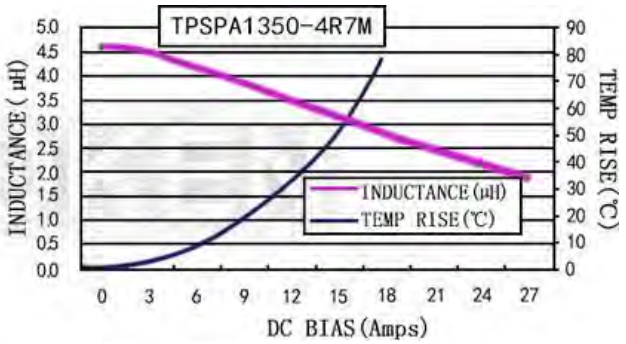


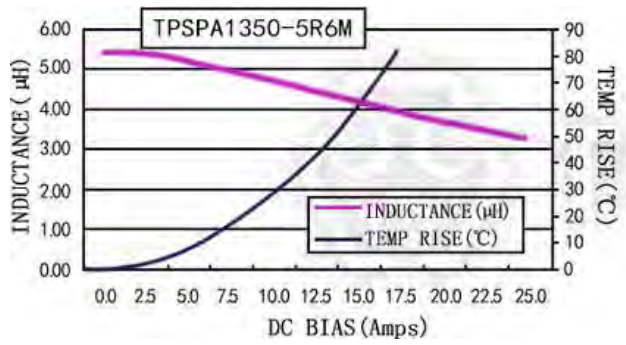
Current characteristics TPSPA1350-***M Series

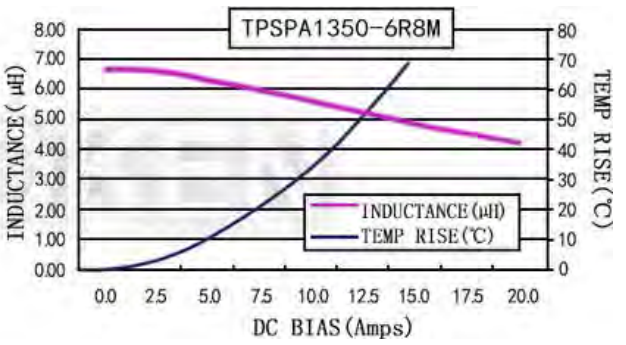


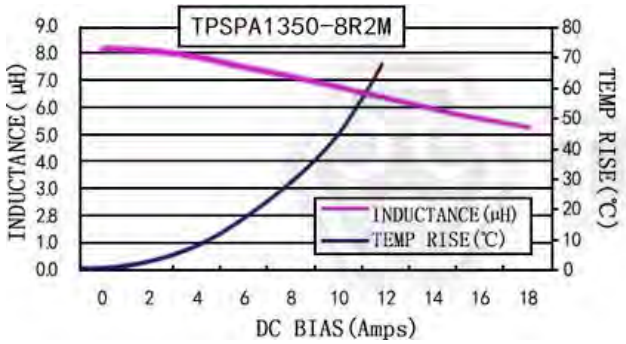


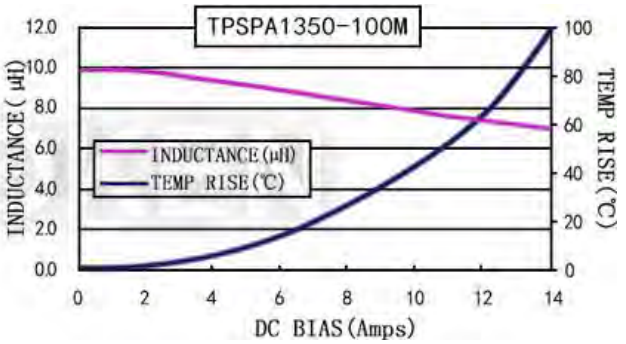




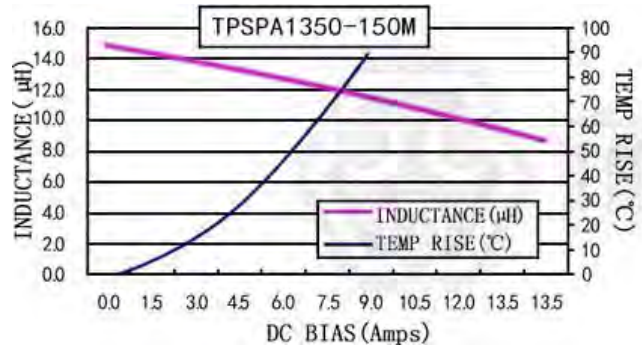


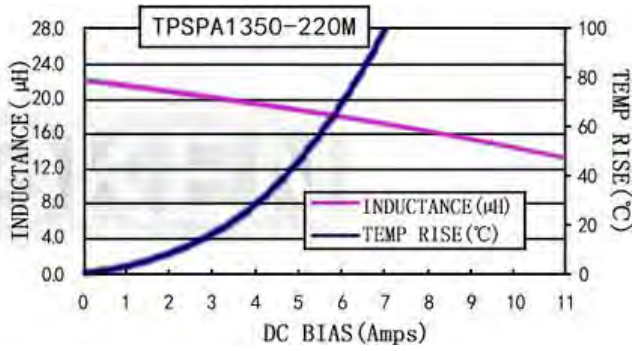


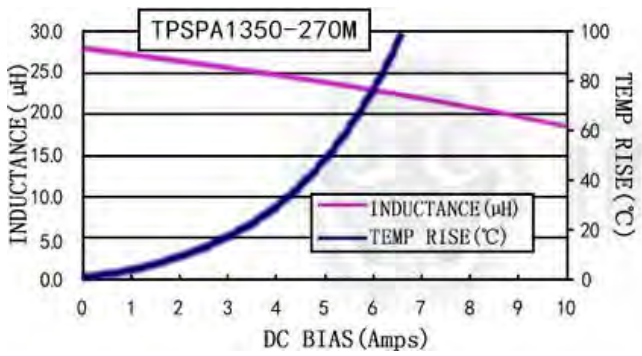


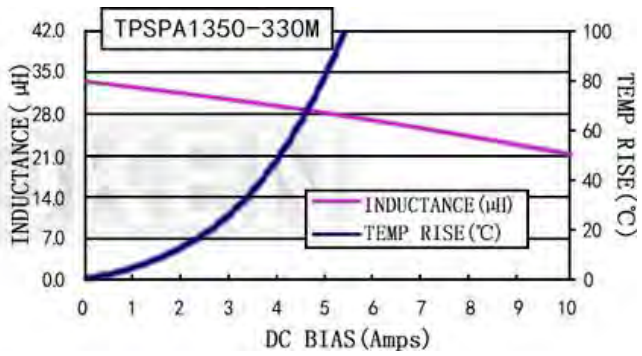


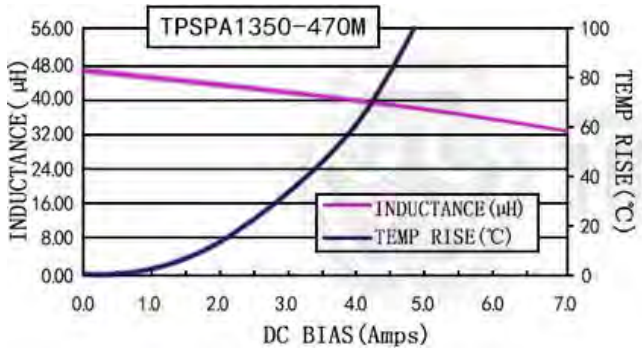
Current characteristics TPSPA1350-***M Series

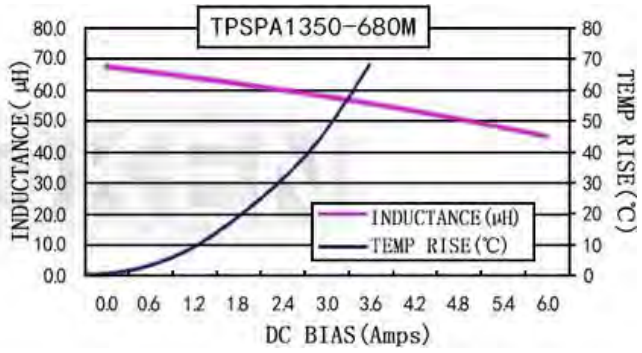












characteristics TPSPA1350-*M Series**

1360

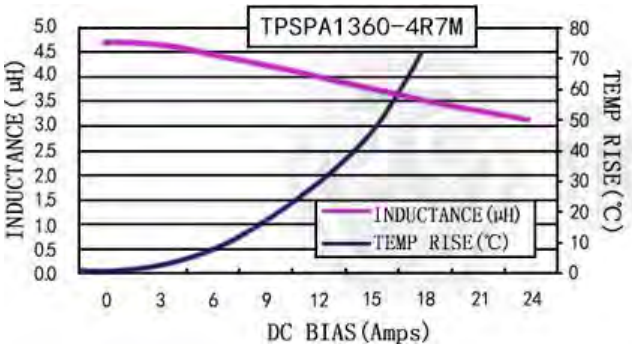
Electrical Characteristics (TPSPA1360)

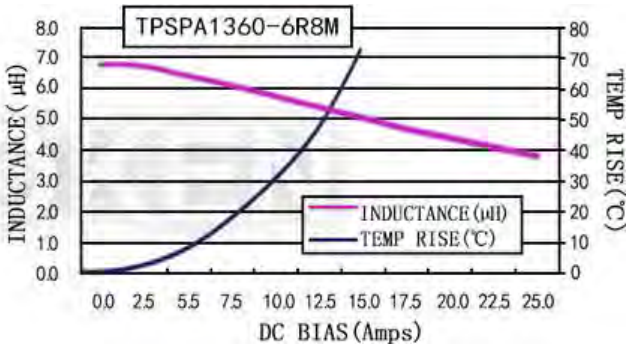
Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1360-4R7M	4.70	6.0	7.0	13.0	20.0
TPSPA1360-6R8M	6.80	10.0	13.8	12.0	15.0
TPSPA1360-8R2M	8.20	13.6	16.0	11.0	14.0
TPSPA1360-100M	10.00	18.0	20.7	10.0	13.0
TPSPA1360-120M	12.00	20.0	23.0	7.0	11.0
TPSPA1360-150M	15.00	25.0	29.0	6.0	9.0
TPSPA1360-180M	18.00	30.0	35.0	5.0	8.0
TPSPA1360-220M	22.00	34.0	39.5	5.0	7.5
TPSPA1360-270M	27.00	36.0	42.0	4.5	7.0
TPSPA1360-330M	33.00	60.0	70.0	4.0	6.0
TPSPA1360-470M	47.00	78.0	88.0	3.5	5.2
TPSPA1360-680M	68.00	105.0	125.0	3.3	5.0
TPSPA1360-820M	82.00	115.0	140.0	3.0	4.0
TPSPA1360-101M	100.00	130.0	150.0	2.5	3.5
TPSPA1360-121M	120.00	210.0	235.0	2.3	3.2
TPSPA1360-151M	150.00	300.0	350.0	2.0	2.7

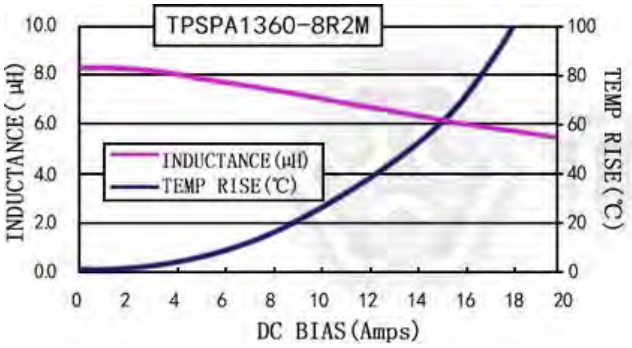
Note:

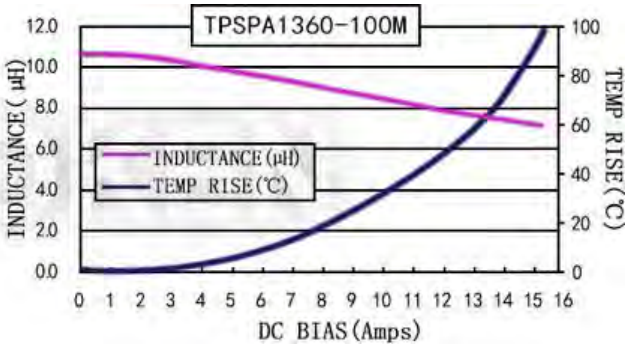
- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

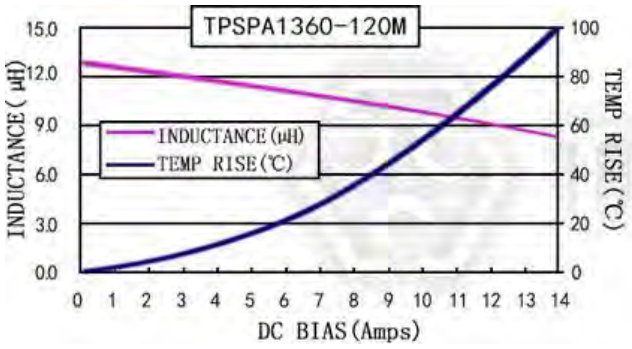
Current characteristics TPSPA1360-***M Series

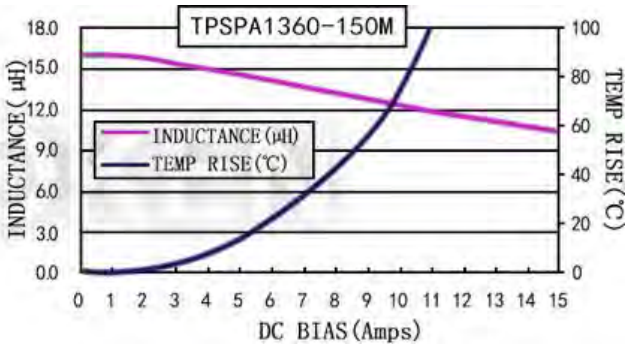


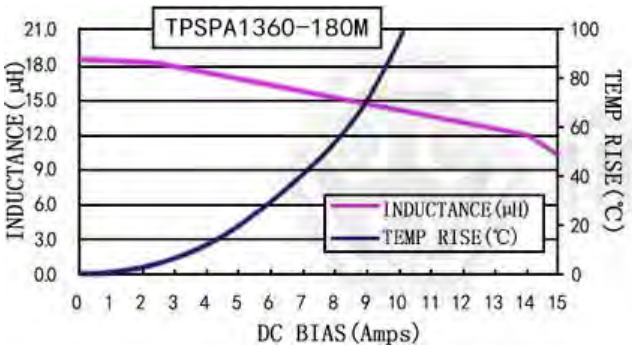


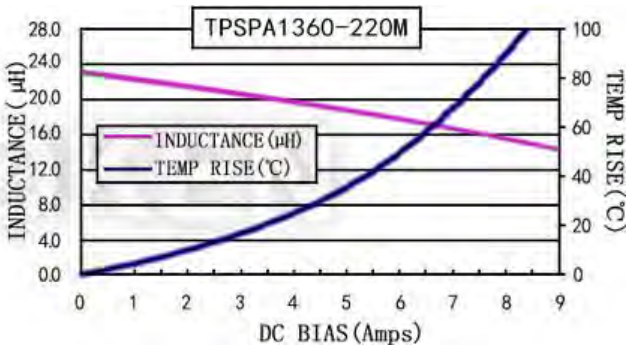




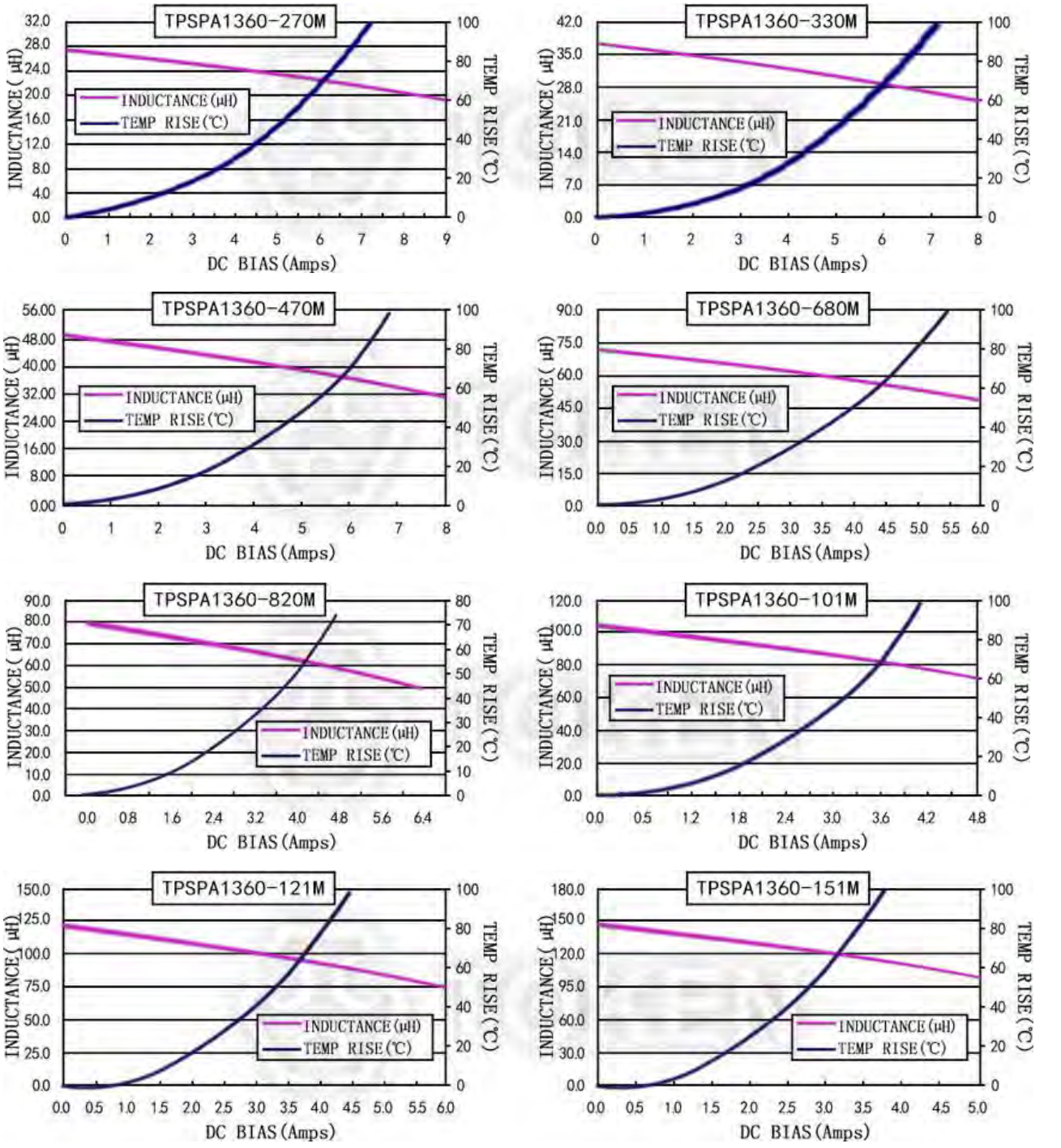








Current characteristics TPSPA1360-***M Series



characteristics TPSPA1360-***M Series

1365

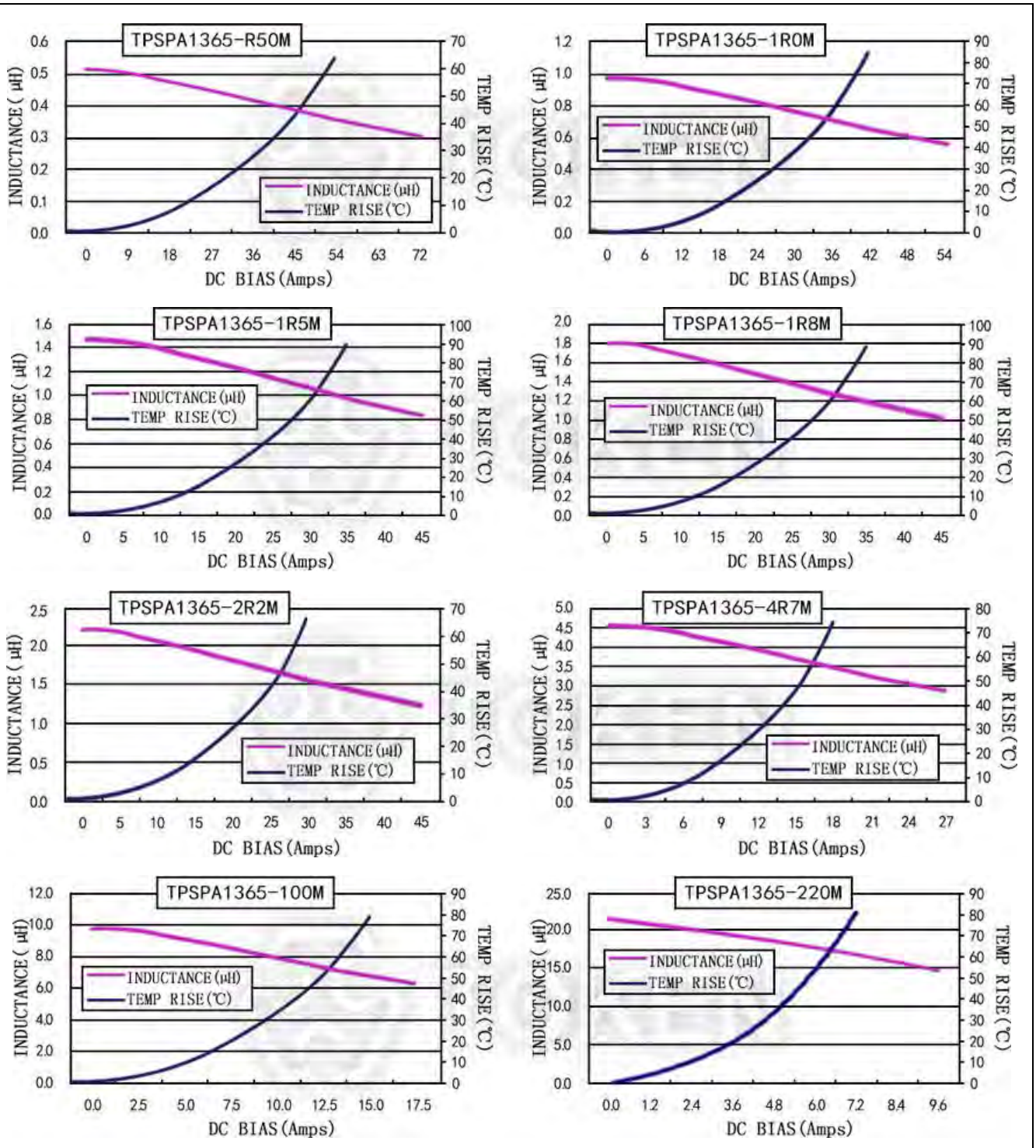
Electrical Characteristics (TPSPA1365)

Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1365-R50M	0.50	0.8	1.0	39.0	55.0
TPSPA1365-1R0M	1.00	1.45	1.67	30.0	35.0
TPSPA1365-1R5M	1.50	2.2	2.5	24.0	30.0
TPSPA1365-1R8M	1.80	2.2	2.5	24.0	28.0
TPSPA1365-2R2M	2.20	2.6	3.0	23.0	28.0
TPSPA1365-4R7M	4.70	6.0	7.0	13.0	18.0
TPSPA1365-100M	10.00	17.0	19.0	10.0	13.0
TPSPA1365-220M	22.00	32.0	36.0	5.0	7.5

Note:

- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

Current characteristics TPSPA1365-***M Series



characteristics TPSPA1365-***M Series

1770

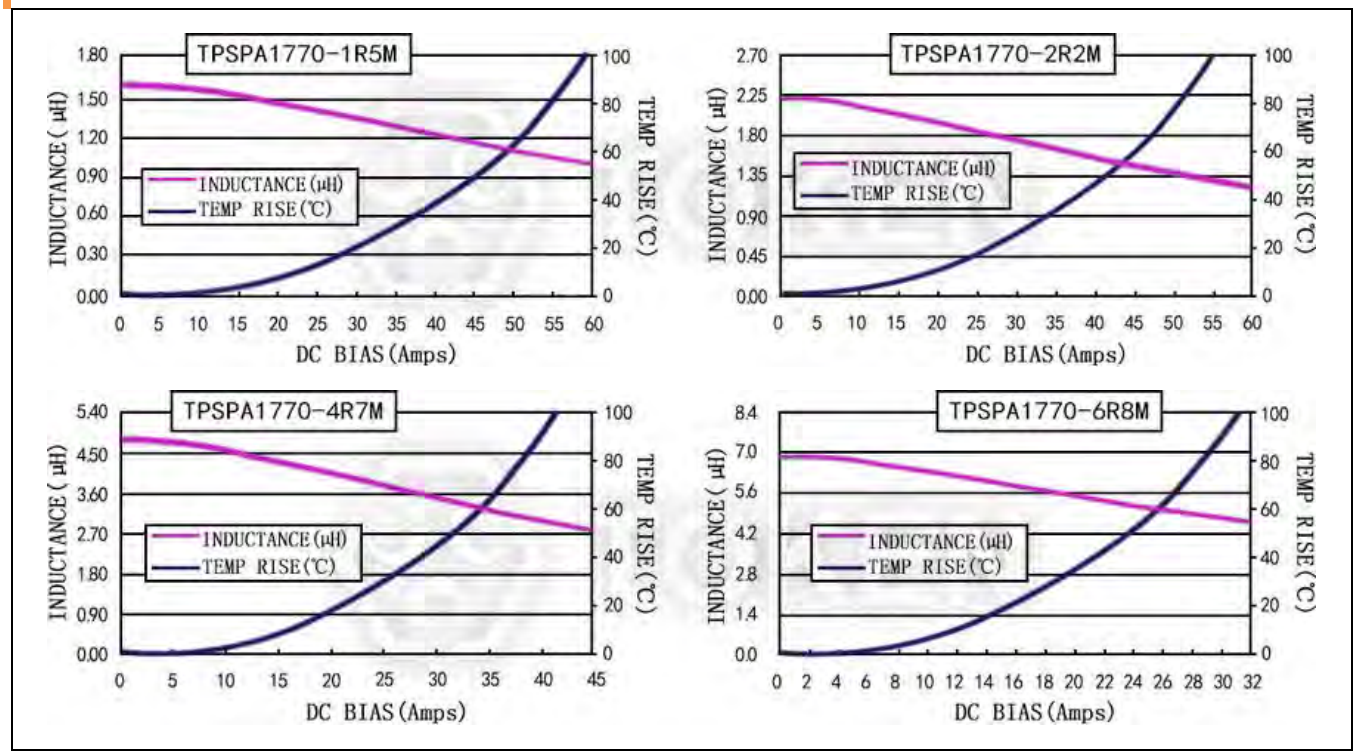
Electrical Characteristics (TPSPA1770)

Part Number	L0 Inductance (µH) @ (0A) ±20%	DCR (mΩ) @25°C		Heat Rating Current Idc (A) Typical	Saturation Current Isat (A) Typical
		(Typical)	(Max)		
TPSPA1770-1R5M	1.50	1.85	2.15	40.0	40.0
TPSPA1770-2R2M	2.20	2.15	2.5	37.0	34.0
TPSPA1770-4R7M	4.70	4.12	4.72	27.0	24.0
TPSPA1770-6R8M	6.80	6.55	7.55	20.0	22.0
TPSPA1770-8R2M	8.20	8.1	8.7	16.0	20.0
TPSPA1770-100M	10.00	9.3	10.0	14.0	18.0
TPSPA1770-150M	15.00	14.5	15.5	12.0	13.0
TPSPA1770-200M	20.00	19.5	21.9	9.7	12.0
TPSPA1770-220M	22.00	20.5	23.0	9.5	11.0
TPSPA1770-330M	33.00	35.0	37.0	9.0	10.0
TPSPA1770-470M	47.00	41.0	47.0	6.8	7.5
TPSPA1770-680M	68.00	74.0	85.0	5.2	6.5

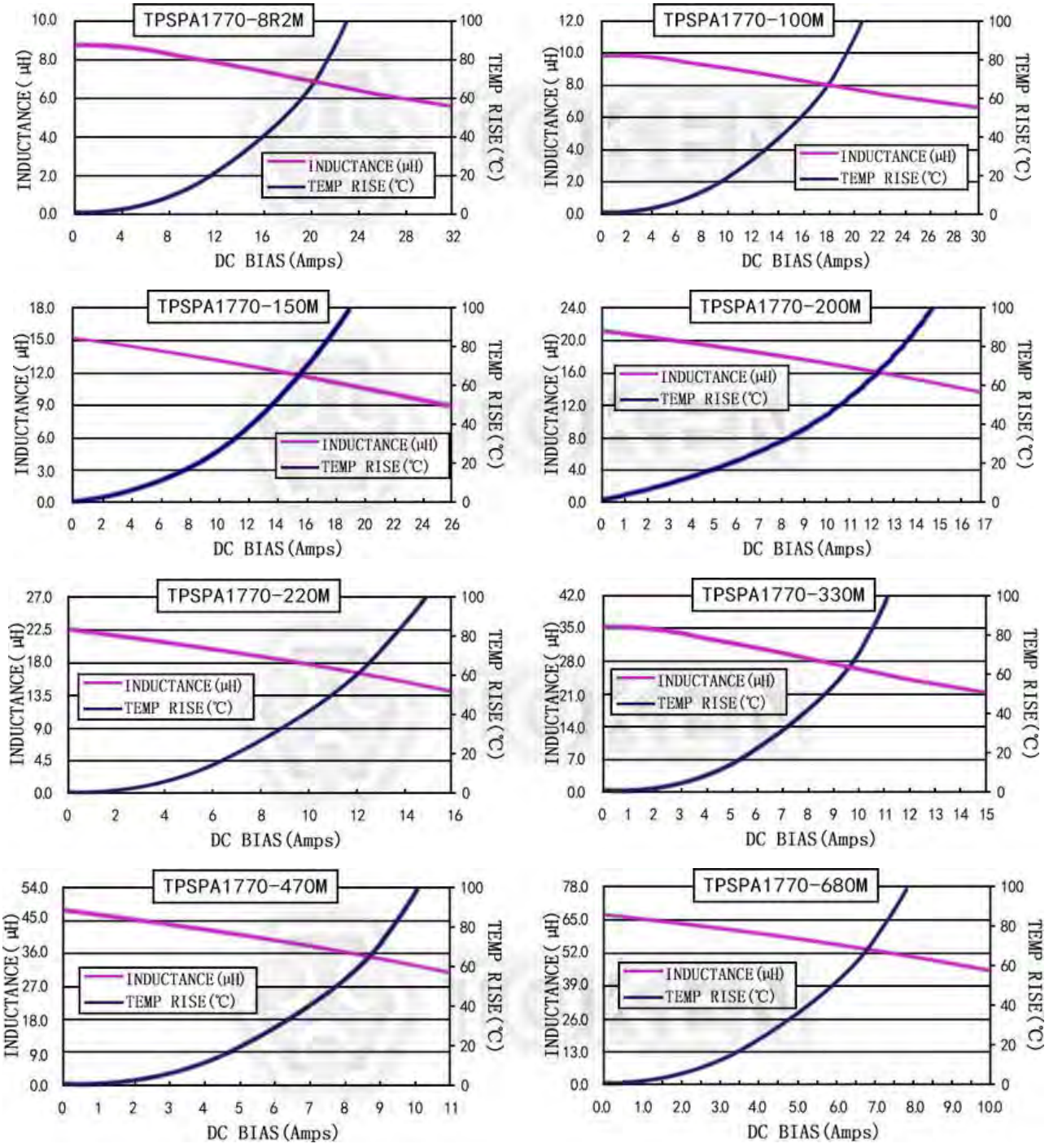
Note:

- **Test frequency at 100KHZ,0.1Vrms.**
- **Isat:DC current at which the inductance drops 30% from its value without current.**
- **Irms:Current that causes a 40°C temperature rise from 25°C ambient.**

Current characteristics TPSPA1770-***M Series



Current characteristics TPSPA1770-***M Series



characteristics TPSPA1770-***M Series

Order Codes

Order Codes (TPSPA)

TPSPA	0420	-	R10	M

Part Number
TPSPA

Size (L×M)(mm)	
0420	4.2×4.4
0518	5.2×5.4
0530	5.2×5.4
0612	6.6×7.15
0615	6.6×7.15
0618	6.6×7.15
0624	6.6×7.15
0630	6.6×7.15
0650	6.6×7.15
1030	10.1×11.15
1040	10.1×11.15
1050	10.1×11.15
1335	12.6×13.65
1350	12.6×13.65
1360	12.6×13.65
1365	12.6×13.65
1770	17.15×17.15

Inductance	
R10	0.10μH
1R0	1.00μH
100	10.00μH
101	100.00μH

Tolerance	
J	± 5%
K	± 10%
L	± 15%
M	± 20%
P	± 25%
N	± 30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSPC) Large Current Power Inductors

Product Introduction

Get High Efficiency and Low Core Loss Inductor Solutions in Token (TPSPC) series.

Features :

- Low Core Loss And High Efficiency Performance.
- Closed Magnetic Field Construction For High Density Board Assembly.
- Excellent high frequency characteristics.

Applications :

- TV, VCR,Switching power sources, NC machines.
- Computes systems and Measuring instruments.

Token (TPSPC) series designed for lowering costs and saving board space in applications by eliminating the need for separate board level shielding for the chip inductors. Token Electronics has added those new generation portable products in new ranges of low-profile wirewound chip inductors, TPSPC1055, TPSPC1060, TPSPC1260, and TPSPC2111, for use in DC-DC converter applications to increase flexibility of maximum height measurements with extended electrical characteristics.

Winding chip coils the TPSPC series offer low DC resistance and large rated current. This is vital for DC-DC converter applications as it prevents energy dissipation from the chip inductor, improving the converter's overall efficiency. It is designed to provide a good balance of height and performance within chip power miniature inductor offering and enables flexibility and efficiency.

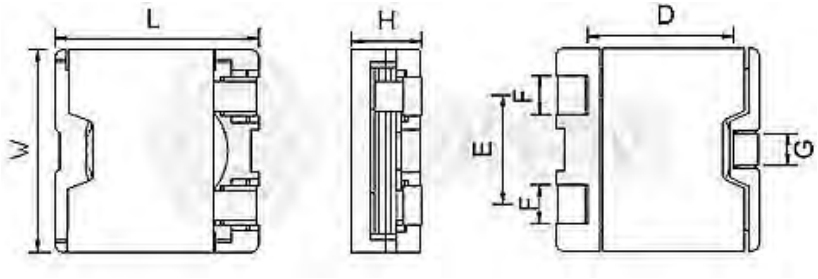
The new ranges deliver a good size/performance ratio with low DC resistances from 5ohm and 55ohm. Their low-profile size packaging is designed to save space. A wide range of inductances is also available: 0.15µH to 38µH. The parts come with high rated currents, up to 12A, and feature magnetic shielding as standard. Operating temperature range is -55°C to +125°C.

Token will also produce devices outside these specifications to meet specific customer requirements and custom parts are available on request. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

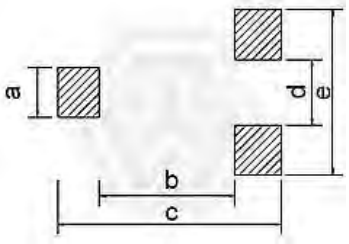
Dimensions

Dimensions & Configurations (Unit: mm) (TPSPC)

ITEM	W Max.	L Max.	H Max.	a	b	c	d	e
TPSPC1055	11.0	7.0	6.0	3.0	5.8	11	2.2	5.2
TPSPC1060	12.0	8.0	7.0	3.0	5.8	12	2.2	5.2
TPSPC1260	13.5	10.0	6.5	3.0	6.6	14	3.6	6.6
TPSPC2111	23.0	16.0	12.0	3.0	12	23	10	14.5



SMD wirewound power inductor (TPSPC) Structure size



SMD wirewound power inductor (TPSPC) Pad size

1055

Electrical Specification (TPSPC1055)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max.	Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
TPSPC1055-R15	0.15	M、N	100/1	6	8	16
TPSPC1055-R30	0.30	M、N	100/1	8	8	16
TPSPC1055-R68	0.68	M、N	100/1	10	5	13
TPSPC1055-R80	0.80	M、N	100/1	10	5	13
TPSPC1055-1R0	1.0	M、N	100/1	12	5	13
TPSPC1055-1R2	1.2	M、N	100/1	13	5	12
TPSPC1055-1R4	1.4	M、N	100/1	15	4	10
TPSPC1055-2R2	2.2	M、N	100/1	20	4	10
TPSPC1055-3R2	3.2	M、N	100/1	16	3	8
TPSPC1055-4R0	4.0	M、N	100/1	20	3	6
TPSPC1055-5R6	5.6	M、N	100/1	25	2.5	7
TPSPC1055-6R8	6.8	M、N	100/1	30	2.5	6
TPSPC1055-8R2	8.2	M、N	100/1	30	2	5
TPSPC1055-100	10	M、N	100/1	35	2	5

Remark:

- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:

- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

1060

Electrical Specification (TPSPC1060)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max.	Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
TPSPC1060-220	22	M、N	100/1	50	2.5	5
TPSPC1060-380	38	M、N	100/1	55	2.5	4

Remark:

- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:

- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

1260

Electrical Specification (TPSPC1260)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max.	Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
TPSPC1260-R33	0.33	M、N	100/1	5	9	20
TPSPC1260-R47	0.47	M、N	100/1	8	8	16
TPSPC1260-R80	0.80	M、N	100/1	10	5	14
TPSPC1260-1R0	1.0	M、N	100/1	12	5	14
TPSPC1260-1R5	1.5	M、N	100/1	14	4	12
TPSPC1260-1R8	1.8	M、N	100/1	15	4	10
TPSPC1260-2R2	2.2	M、N	100/1	18	4	10
TPSPC1260-2R5	2.5	M、N	100/1	20	3	8
TPSPC1260-3R2	3.2	M、N	100/1	22	3	8
TPSPC1260-4R0	4.0	M、N	100/1	15	3	7
TPSPC1260-5R6	5.6	M、N	100/1	18	2.5	7
TPSPC1260-6R0	6.0	M、N	100/1	20	2.5	6.5
TPSPC1260-7R2	7.2	M、N	100/1	20	2.5	6
TPSPC1260-8R2	8.2	M、N	100/1	20	2	5
TPSPC1260-9R2	9.2	M、N	100/1	22	2	5
TPSPC1260-100	10	M、N	100/1	22	2	5

Remark:

- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:

- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

2111

Electrical Specification (TPSPC2111)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max.	Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
TPSPC2111-8R2	8.2	M、N	100/1	12	12	18
TPSPC2111-160	16.0	M、N	100/1	20	12	18

Remark:

- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

- **Note:**
- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

Order Codes

Order Codes (TPSPC)

TPSPC1055	-	R15	M

Part Number
TPSPC1055
TPSPC1060
TPSPC1260
TPSPC2111

Inductance	
R15	0.15μH
1R0	1.00μH
470	47.00μH
101	100.00μH

Tolerance	
J	± 5%
K	± 10%
L	± 15%
M	± 20%
P	± 25%
N	± 30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSRB) EMI High-Saturation Power Inductors

Product Introduction

Token Integrated E-Shield for Reduction of EMI In The Compact Case Size.

Features :

- Compact size.
- Magnetically shielded.
- Superior high Saturation for surface mounting.

Applications :

- Power supply for VCRS, OA equipment Digital camera, LCD television set, notebook PC, portable communication Equipments, DC/DC converters, etc.

The TPSRB series of wire wound, surface-mount inductor from Token Electronics is designed for general purpose inductor to eliminate EMI in power lines for telecommunications, test & measurement equipment, networking, portable electronic equipment, PCs, appliances, and other electronic devices.

Developed to increase DC to DC converter efficiency through low DC resistance, the compact inductors save valuable board space, measuring only 5.6 mm x 6.2 mm x 3.2 mm for TPSRB63, 7.0 mm x 7.8 mm x 4.5 mm for TPSRB74, 9.0 mm x 10.0 mm x 5.5 mm for TPSRB105.

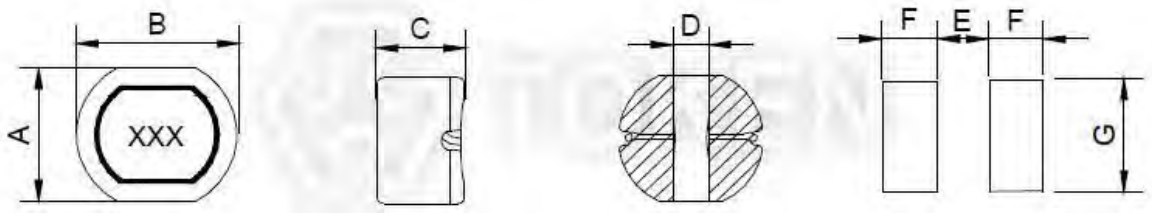
The inductors are magnetically shielded to prevent interference and operate in a wide temperature range. Token Electronics offers a variety of coils and inductors, including choke coils with low DC resistance for power supply circuits. Customers can select the optimum characteristics by choosing from monolithic or wire wound construction and a wide range of inductance values and tolerances with some types offering magnetic shielding.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (TPSRB)

Part NO	A±0.5	B±0.5	C±0.5	D (Ref)	E (Ref)	F (Ref)	G (Ref)
TPSRB63	5.6	6.2	3.2	1.8	1.7	2.25	5.5
TPSRB74	7.0	7.8	4.5	2.0	2.0	4.0	7.5
TPSRB105	9.0	10.0	5.5	2.8	2.5	5.0	9.5



Surface Mount (TPSRB) Dimensions (Unit: mm)

- **Note: Design as Customer's Requested Specifications.**

TPSRB

Electrical Characteristics (TPSRB)

Inductance (µH)		TPSRB63		TPSRB74		TPSRB105	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
100	10	0.082	1.62	0.04	1.65	0.03	2.06
120	12	0.103	1.48	0.04	1.57	0.03	1.94
150	15	0.12	1.32	0.06	1.39	0.04	1.72
180	18	0.16	1.21	0.06	1.29	0.05	1.58
220	22	0.176	1.09	0.07	1.12	0.05	1.42
270	27	0.32	1.99	0.10	1.06	0.07	1.32
330	33	0.36	0.89	0.13	0.97	0.08	1.16
390	39	0.46	0.82	0.16	0.91	0.09	1.10
470	47	0.5	0.75	0.19	0.80	0.11	1.00
560	56	0.67	0.68	0.21	0.76	0.11	0.93
680	68	0.74	0.62	0.24	0.68	0.14	0.85
820	82	0.82	0.57	0.32	0.62	0.17	0.79
101	100	1.15	0.51	0.36	0.55	0.22	0.72
121	120	1.26	0.47	0.39	0.49	0.27	0.63
151	150	1.41	0.42	0.49	0.44	0.35	0.55
181	180	2.28	0.38	0.61	0.4	0.42	0.5
221	220	2.54	0.35	0.72	0.36	0.48	0.47
271	270	3.0	0.31	0.83	0.33	0.58	0.41
331	330	5.4	0.28			0.74	0.37
391	390	6.26	0.26			0.82	0.35
471	470	6.5	0.24			0.96	0.33

Note:

- **Measuring Frequency. L: ＜100uH 以上(100KHz/0.25v) L:＞100uH 以上(1KHz/0.25v).**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt=40℃ (ta=20℃).**

Order Codes

Order Codes (TPSRB)

TPSRB63	-	100	M

Part Number
TPSRB63
TPSRB74
TPSRB105

Inductance	
100	10.00µH
101	100.00µH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

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- A brief description of your particular application's requirements.
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- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSH) Low DCR Low-Profile Power Inductors

Product Introduction

Token's Low DCR Low-Profile Power Inductors fit into to more protable applications.

Features :

- Various high power inductors are superior to be high Saturation for surface mounting..
- Excellent solderabillity and high heat resistance.
- Magnerically shielded construction.

Applications :

- Power supply for VCRS; OA equipment Digital camera, LCD television set notebook PC, portable communication Equipments, DC/DC converters, etc..

Like many components in the industry, power wirewound inductors are being impacted by the trend toward smaller electronic devices with enhanced functionality requiring increased density of components on the board.

Token introduces low-profile, high-current inductor in case size. The TPSH series offers designers a high-current solution using a larger part, without exceeding a profile of 1.1 mm on either side of the PC board.

The miniaturization of battery-powered devices also requires more compact circuit-board designs, and therefore smaller but more-effective inductor designs. Token (TPSH) offers an inductance range from 1.0 µH to 1000.0 µH, and DCR from 0.009Ω to 19.110Ω,.

The (TPSH) inductor serves as a high-performing, space-saving and power-saving solution for low-profile, high-current power supplies and point of load (POL) converters; distributed power systems; voltage regulator module (VRM) and DC-to-DC converter applications in end products including next-generation mobile devices; notebooks, desktop computers, personal multimedia devices, automotive systems, servers, graphic cards, portable gaming devices, and personal navigation systems; and field-programmable gate arrays (FPGAs).

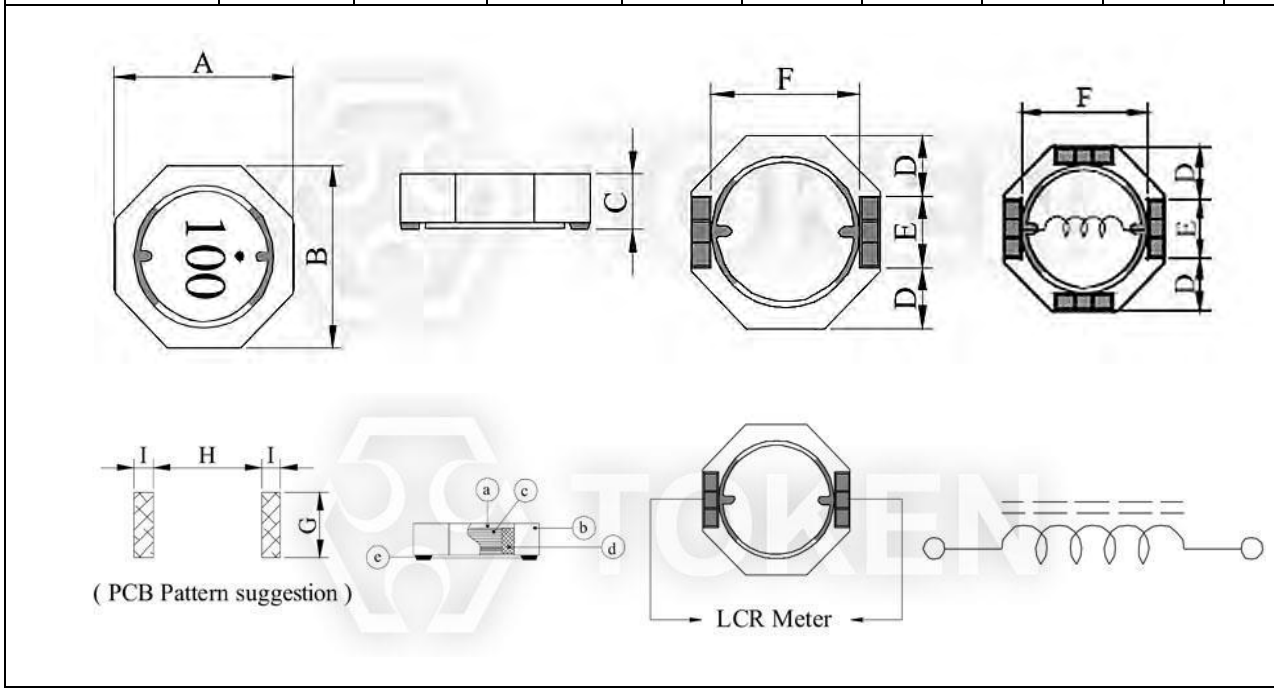
This wire-wound inductor handles high transient current spikes without hard saturation. Packaged in an RoHS-compliant, 100 % lead (Pb)-free shielded, composite construction that reduces buzz noise to ultra-low levels, the new device is specified for an operating temperature range of -25°C to +125°C, with high resistance to mechanical shock, thermal shock, moisture, and vibration.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements,Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (TPSH)

Type	A ± 0.3	B ± 0.3	C ± 0.3	D	E	F	G	H	I
TPSH6011	6.20	6.50	1.10	2.15	2.20	4.90	2.40	4.90	1.10
TPSH6011	6.20	6.50	1.10	2.15	2.20	4.90	2.40	4.90	1.10
TPSH6013	6.20	6.50	1.40	2.15	2.20	4.90	2.40	4.90	1.10
TPSH6018	6.20	6.50	1.80	2.15	2.20	4.90	2.40	4.90	1.10
TPSH6025	6.20	6.50	2.50	2.15	2.20	4.90	2.40	4.90	1.10
TPSH8028	6.20	6.50	2.50	2.15	2.20	4.90	2.40	4.90	1.10
TPSH8030	8.00	8.00	2.80	2.50	2.80	6.00	3.20	5.80	2.00
TPSH8040	8.00	8.00	3.80	2.40	3.20	6.40	3.40	6.20	1.40
TPSH8043	6.20	6.50	2.50	2.15	2.20	4.90	2.40	4.90	1.10
TPSH8045	8.00	8.00	4.30	2.50	3.00	6.00	3.20	5.80	1.40
TPSH8058	8.00	8.00	5.80	2.40	3.20	6.40	3.40	6.20	1.40
TPSH1028	10.0	10.0	2.80	3.40	3.20	7.40	4.00	7.20	1.80
TPSH1030	10.0	10.0	2.80	3.00	4.00	8.20	4.20	8.20	1.40
TPSH1038	10.0	10.0	3.80	3.40	3.20	7.40	4.00	7.20	1.80
TPSH1040	10.0	10.0	3.80	3.00	4.00	8.20	4.20	8.20	1.40
TPSH1050	10.0	10.0	4.80	3.00	4.00	8.20	4.20	8.20	1.40
TPSH1065	10.0	10.0	6.60	3.00	4.00	8.20	4.20	8.20	1.40



- **Note: Design as Customer's Requested Specifications.**

TPSH60

Electrical Characteristics (TPSH6011)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH6011-1R4	1.4 ± 30%	8	100K	7.96M	30	40	140	2600	1800
TPSH6011-2R7	2.7 ± 30%	8	100K	7.96M	48	62	100	2200	1450
TPSH6011-4R7	4.7 ± 30%	8	100K	7.96M	66	86	70	1800	1100
TPSH6011-6R8	6.8 ± 30%	7	100K	7.96M	105	136	55	1400	900
TPSH6011-100	10.0 ± 30%	12	100K	2.52M	170	220	45	1100	720
TPSH6011-150	15.0 ± 30%	10	100K	2.52M	240	320	32	950	620
TPSH6011-220	22.0 ± 30%	10	100K	2.52M	300	390	26	800	480
TPSH6011-330	33.0 ± 30%	10	100K	2.52M	430	560	22	680	380
TPSH6011-470	47.0 ± 30%	10	100K	2.52M	650	850	20	550	320
TPSH6011-680	68.0 ± 30%	12	100K	2.52M	920	1200	18	460	280

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH6013)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH6013-1R0	1.0 ± 30%	12	100K	7.96M	28	36	100	3200	2900
TPSH6013-1R5	1.5 ± 30%	10	100K	7.96M	32	40	90	3000	2400
TPSH6013-2R2	2.2 ± 30%	10	100K	7.96M	40	50	80	2500	2100
TPSH6013-3R3	3.3 ± 30%	10	100K	7.96M	45	60	70	2350	1750
TPSH6013-4R2	4.2 ± 30%	10	100K	7.96M	58	75	55	2100	1500
TPSH6013-6R4	6.4 ± 30%	10	100K	7.96M	85	110	45	1700	1300
TPSH6013-100	10.0 ± 30%	14	100K	2.52M	132	156	35	1400	1100
TPSH6013-150	15.0 ± 30%	12	100K	2.52M	180	235	26	1100	800
TPSH6013-220	22.0 ± 30%	12	100K	2.52M	260	325	22	950	720
TPSH6013-330	33.0 ± 30%	10	100K	2.52M	400	500	18	780	580
TPSH6013-470	47.0 ± 30%	10	100K	2.52M	540	675	14	660	500
TPSH6013-680	68.0 ± 30%	10	100K	2.52M	720	900	10	600	400

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH6018)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH6018-1R2	1.2 ± 30%	8	100K	7.96M	19	25	130	3600	2800
TPSH6018-1R8	1.8 ± 30%	8	100K	7.96M	22	28	90	3000	2300
TPSH6018-3R3	3.3 ± 30%	8	100K	7.96M	28	39	60	2500	1700
TPSH6018-4R7	4.7 ± 30%	8	100K	7.96M	32	42	50	2200	1400
TPSH6018-6R8	6.8 ± 30%	8	100K	7.96M	46	60	40	1900	1200
TPSH6018-100	10.0 ± 30%	12	100K	2.52M	68	88	30	1700	1000
TPSH6018-150	15.0 ± 30%	12	100K	2.52M	100	130	24	1500	800
TPSH6018-220	22.0 ± 30%	14	100K	2.52M	145	190	18	1200	650
TPSH6018-330	33.0 ± 30%	10	100K	2.52M	195	255	16	1000	580
TPSH6018-470	47.0 ± 30%	12	100K	2.52M	315	410	14	800	460
TPSH6018-680	68.0 ± 30%	12	100K	2.52M	455	600	12	620	360
TPSH6018-101	100.0 ± 30%	20	100K	2.52M	550	715	9	550	340

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH6025)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH6025-2R2	2.2 ± 30%	8	100K	7.96M	18.5	24	65	3400	2350
TPSH6025-3R3	3.3 ± 30%	8	100K	7.96M	21.0	27	50	3200	2000
TPSH6025-4R7	4.7 ± 30%	8	100K	7.96M	27.0	35	42	2700	1550
TPSH6025-6R8	6.8 ± 30%	8	100K	7.96M	32.0	42	36	2400	1300
TPSH6025-8R2	8.2 ± 30%	8	100K	7.96M	40.0	52	30	2200	1250
TPSH6025-100	10.0 ± 30%	12	100K	2.52M	44.0	57	25	2000	1050
TPSH6025-150	15.0 ± 30%	12	100K	2.52M	66.0	86	22	1800	920
TPSH6025-220	22.0 ± 30%	12	100K	2.52M	100	130	18	1600	700
TPSH6025-330	33.0 ± 30%	12	100K	2.52M	140	12	65	1200	640
TPSH6025-470	47.0 ± 30%	12	100K	2.52M	190	250	10	1000	480
TPSH6025-680	68.0 ± 30%	10	100K	2.52M	280	500	7	700	350
TPSH6025-101	100.0 ± 30%	24	100K	796K	385	500	7	700	370
TPSH6025-221	220.0 ± 30%	20	100K	796K	950	1250	4	420	240

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

TPSH80

Electrical Characteristics (TPSH8028)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH8028-3R3	3.3 ± 30%	12	100K	7.96M	60.0	17.5	23.0	3.60	3.50
TPSH8028-4R7	4.7 ± 30%	15	100K	7.96M	50.0	20.0	26.0	3.70	3.20
TPSH8028-6R8	6.8 ± 30%	13	100K	7.96M	40.0	34.0	45.0	2.80	2.50
TPSH8028-100	10.0 ± 30%	22	100K	2.52M	25.0	45.0	85.0	2.00	1.70
TPSH8028-150	15.0 ± 30%	20	100K	2.52M	20.0	66.0	130.0	1.60	1.50
TPSH8028-220	22 ± 30%	22	100K	2.52M	15.0	147.0	185.0	1.30	1.10
TPSH8028-470	47.0 ± 30%	14	100K	2.52M	12.0	177.0	230.0	1.20	1.00
TPSH8028-680	68 ± 30%	23	100K	2.52M	9.0	317.0	390.0	0.85	0.80

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH8030)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH8030-3R3	3.3 ± 30%	12	100K	7.96M	55.0	15.6	22.0	5.00	4.60
TPSH8030-4R7	4.7 ± 30%	10	100K	7.96M	42.0	22.6	30.0	4.60	3.80
TPSH8030-6R8	6.8 ± 30%	10	100K	7.96M	30.0	34.5	46.0	3.60	3.20
TPSH8030-100	10.0 ± 30%	18	100K	2.52M	25.0	47.3	60.0	3.00	2.60
TPSH8030-150	15.0 ± 30%	18	100K	2.52M	20.0	75.0	100.0	2.20	2.00
TPSH8030-220	22.0 ± 30%	18	100K	2.52M	16.0	105.0	130.0	2.00	1.75
TPSH8030-330	33.0 ± 30%	16	100K	2.52M	12.0	205.0	260.0	1.45	1.25
TPSH8030-470	47.0 ± 30%	16	100K	2.52M	12.0	205.6	260.0	1.45	1.25
TPSH8030-680	68.0 ± 30%	16	100K	2.52M	9.0	25.6	315.0	1.25	0.96
TPSH8030-101	100.0 ± 30%	24	100K	0.796M	7.0	415.0	520.0	0.85	0.75

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH8040)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH8040-3R3	3.3 ± 30%	12	100K	7.96M	40.0	13.8	18.0	6.00	5.00
TPSH8040-4R2	4.2 ± 30%	12	100K	7.96M	32.0	16.5	22.0	5.30	4.60
TPSH8040-6R2	6.2 ± 30%	10	100K	7.96M	28.0	25.0	32.0	4.20	4.00
TPSH8040-100	10.0 ± 30%	22	100K	2.52M	20.0	33.0	42.0	3.70	2.90
TPSH8040-150	15.0 ± 30%	20	100K	2.52M	18.0	55.0	70.0	2.80	2.50
TPSH8040-220	22.0 ± 30%	22	100K	2.52M	15.0	88	11.0	2.20	2.05
TPSH8040-330	33.0 ± 30%	22	100K	2.52M	12.0	115.0	150.0	1.90	1.75
TPSH8040-470	47.0 ± 30%	20	100K	2.52M	10.0	150.0	190.0	1.55	1.45
TPSH8040-680	68.0 ± 30%	18	100K	2.52M	8.0	205.0	260.0	1.35	1.10
TPSH8040-101	100.0 ± 30%	25	100K	0.796M	6.0	325.0	410.0	1.05	0.95
TPSH8040-151	150.0 ± 30%	18	100K	0.796M	5.0	445.0	560.0	0.90	0.77

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH8043)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH8043-1R0	1.0 ± 30%	15	100K	7.96M	70.0	8.1	10.0	6.60	7.50
TPSH8043-2R2	2.2 ± 30%	15	100K	7.96M	65.0	11.2	15.0	5.40	5.20
TPSH8043-3R3	3.3 ± 30%	12	100K	7.96M	54.0	12.5	17.0	5.10	4.50
TPSH8043-3R9	3.9 ± 30%	15	100K	7.96M	42.0	14.6	19.0	4.80	4.00
TPSH8043-4R7	4.7 ± 30%	13	100K	7.96M	36.0	17.0	22.0	4.60	3.60
TPSH8043-100	10.0 ± 30%	27	100K	2.52M	20.0	30.0	40.0	3.50	2.70
TPSH8043-150	15.0 ± 30%	26	100K	2.52M	15.0	46.0	60.0	2.70	2.00
TPSH8043-220	22.0 ± 30%	24	100K	2.52M	12.0	72.5	95.0	2.20	1.70
TPSH8043-330	33.0 ± 30%	21	100K	2.52M	11.0	100.0	130.0	1.70	1.40
TPSH8043-470	47.0 ± 30%	21	100K	2.52M	9.0	120.0	150.0	1.50	1.20
TPSH8043-680	68.0 ± 30%	20	100K	2.52M	7.0	192.0	250.0	1.20	1.00
TPSH8043-101	100 ± 30%	50	100K	0.796M	6.0	287.0	370.0	1.00	0.80

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH8045)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH8045-3R5	3.5 ± 30%	12	100K	7.96M	45.0	18.8	25.0	5.00	5.00
TPSH8045-4R7	4.7 ± 30%	10	100K	7.96M	30.0	22.0	27.5	4.60	4.40
TPSH8045-6R2	6.2 ± 30%	10	100K	7.96M	23.0	28.5	36.0	4.20	3.80
TPSH8045-100	10.0 ± 30%	16	100K	2.52M	18.0	35.8	48.0	3.50	3.30
TPSH8045-220	22.0 ± 30%	18	100K	2.52M	12.0	94.0	122.0	2.25	2.15
TPSH8045-330	33.0 ± 30%	14	100K	2.52M	8.0	118.0	150.0	2.00	1.80
TPSH8045-470	47.0 ± 30%	12	100K	2.52M	6.0	215.0	270.0	1.45	1.40
TPSH8045-680	68.0 ± 30%	8	100K	2.52M	4.0	320.0	400.0	1.25	1.20
TPSH8045-101	100.0 ± 30%	20	100K	0.70M	3.0	400.0	500.0	1.00	0.92

- **Note:**
- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH8058)

Part NO	Inductance (µH)	Q Ref.	TEST Freq.		DCR (mΩ)		SRF (MHz) TYP.	Irms (mA) TYP.	Isat (mA) TYP.
			L	Q	TYP.	MAX.			
TPSH8058-3R9	3.9 ± 30%	8	100K	7.96M	45.0	12.0	16.0	6.50	4.50
TPSH8058-5R2	5.2 ± 30%	8	100K	7.96M	35.0	14.0	17.5	5.80	3.90
TPSH8058-6R8	6.8 ± 30%	8	100K	7.96M	30.0	16.0	20.0	5.50	4.00
TPSH8058-100	10.0 ± 30%	20	100K	2.52M	14.0	42.0	52.0	3.40	1.80
TPSH8058-220	22.0 ± 30%	20	100K	2.52M	14.0	42.0	52.0	3.40	1.80
TPSH8058-330	33.0 ± 30%	16	100K	2.52M	10.0	58.0	72.0	2.70	1.60
TPSH8058-470	47.0 ± 30%	12	100K	2.52M	7.0	80.0	10.0	2.30	1.50
TPSH8058-680	68.0 ± 30%	16	100K	2.52M	6.0	100.0	130.0	2.00	1.20
TPSH8058-101	100.0 ± 30%	22	100K	0.796M	5.0	124.0	160.0	1.70	0.90

Note:
- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

TPSH10

Electrical Characteristics (TPSH1028)

Part NO	Inductance (µH)	Q Ref.	SRF (MHz) TYP.	DCR (mΩ)		Irms (A) TYP.	Isat (A) TYP.
				TYP.	MAX.		
TPSH1028-1R0	1.0 ± 30%	14	100	4.9	6.5	7.00	8.00
TPSH1028-1R5	1.5 ± 30%	12	80	7.3	10.0	6.50	6.50
TPSH1028-2R2	2.2 ± 30%	12	65	11.0	15.0	5.30	4.80
TPSH1028-3R3	3.3 ± 30%	14	55	15.0	20.0	4.60	4.30
TPSH1028-4R7	4.7 ± 30%	12	40	16.5	3.0	4.50	3.80
TPSH1028-6R8	6.8 ± 30%	12	30	25.0	33.0	3.50	3.00
TPSH1028-8R2	8.2 ± 30%	12	28	28.5	37.0	3.30	2.70
TPSH1028-100	10.0 ± 30%	20	25	40.0	53.0	2.80	2.40
TPSH1028-150	15.0 ± 30%	26	22	69.0	90.0	2.00	2.00
TPSH1028-220	22.0 ± 30%	26	16	104.0	135.0	1.60	1.40
TPSH1028-330	33.0 ± 30%	24	12	139.0	180.0	1.25	1.20
TPSH1028-470	47.0 ± 30%	20	11	167.0	230.0	1.30	1.10
TPSH1028-560	56.0 ± 30%	22	10	208.0	270.0	1.10	1.00
TPSH1028-680	68.0 ± 30%	20	9	232.0	300.0	1.00	0.90
TPSH1028-820	82.0 ± 30%	20	8	323.0	420.0	0.90	0.85
TPSH1028-101	100.0 ± 30%	20	7	365.0	470.0	0.85	0.80
TPSH1028-121	120.0 ± 30%	18	6	428.0	560.0	0.65	0.70
TPSH1028-151	150.0 ± 30%	18	5	518.0	680.0	0.70	0.65

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt = 40°C (ta = 20°C).**

Electrical Characteristics (TPSH1030)

Part NO	Inductance (µH)	Q Ref.	SRF (MHz) TYP.	DCR (mΩ)		Irms (A) TYP.	Isat (A) TYP.
				TYP.	MAX.		
TPSH1030-4R7	4.7 ± 30%	14	36	25.0	32.5	4.20	4.40
TPSH1030-6R2	6.2 ± 30%	12	30	32.0	42.0	3.80	3.90
TPSH1030-100	10.0 ± 30%	16	26	44.0	58.0	3.00	3.10
TPSH1030-150	15.0 ± 30%	16	22	73.0	95.0	2.60	2.55
TPSH1030-220	22.0 ± 30%	16	18	110.0	145.0	2.00	2.10
TPSH1030-330	33.0 ± 30%	12	14	150.0	195.0	1.70	1.74
TPSH1030-470	47.0 ± 30%	14	12	210.0	270.0	1.40	1.35
TPSH1030-680	68.0 ± 30%	14	10	285.0	370.0	1.20	1.22
TPSH1030-101	100.0 ± 30%	14	8.5	395.0	520.0	1.10	1.02
TPSH1030-151	150.0 ± 30%	12	5.5	640.0	840.0	0.85	0.84

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40°C Δt = 40°C (ta = 20°C).**

Electrical Characteristics (TPSH1038)

Part NO	Inductance (µH)	Q Ref.	SRF (MHz) TYP.	DCR (mΩ)		Irms (A) TYP.	Isat (A) TYP.
				TYP.	MAX.		
TPSH1038-1R5	1.5 ± 30%	14	65	5.2	7.5	7.20	7.00
TPSH1038-2R2	2.2 ± 30%	12	55	7.7	10.5	6.80	6.50
TPSH1038-3R5	3.5 ± 30%	14	35	11.5	15.0	5.50	5.50
TPSH1038-5R0	5.0 ± 30%	12	30	14.5	22.0	4.60	4.80
TPSH1038-6R2	6.2 ± 30%	12	25	16.5	24.0	4.00	4.20
TPSH1038-100	10.0 ± 30%	24	20	25.0	35.0	3.80	3.60
TPSH1038-150	15.0 ± 30%	24	16	37.0	50.0	2.80	2.70
TPSH1038-220	22.0 ± 30%	20	12	55.8	75.0	2.20	2.30
TPSH1038-330	33.0 ± 30%	22	10	86.0	112.0	1.80	1.80
TPSH1038-470	47.0 ± 30%	22	8	121.0	160.0	1.65	1.60
TPSH1038-680	68.0 ± 30%	24	6	220.0	300.0	1.30	1.10
TPSH1038-101	100.0 ± 30%	24	6	220.0	300.0	1.30	1.10
TPSH1038-151	150.0 ± 30%	20	5	358.0	476.0	0.90	0.80
TPSH1038-221	220.0 ± 30%	22	4	565.0	740.0	0.65	0.65
TPSH1038-331	330.0 ± 30%	20	3	773.0	1000.0	0.55	0.52

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH1040)

Part NO	Inductance (µH)	Q Ref.	SRF (MHz) TYP.	DCR (mΩ)		Irms (A) TYP.	Isat (A) TYP.
				TYP.	MAX.		
TPSH1040-5R0	5.0 ± 30%	12	28.0	17.5	23.0	5.20	4.70
TPSH1040-6R2	6.2 ± 30%	12	24.0	21.5	28.0	4.70	4.30
TPSH1040-100	10.0 ± 30%	16	22.0	32.0	42.0	4.40	3.80
TPSH1040-150	15.0 ± 30%	18	16.0	60.0	78.0	2.90	2.80
TPSH1040-220	22.0 ± 30%	16	12.0	75.0	98.0	2.55	2.48
TPSH1040-330	33.0 ± 30%	16	10.0	110.0	140.0	2.05	2.00
TPSH1040-470	47.0 ± 30%	16	8.0	170.0	22.0	1.62	1.56
TPSH1040-680	68.0 ± 30%	16	7.0	245.0	320.0	1.45	1.40
TPSH1040-101	100.0 ± 30%	14	6.0	320.0	415.0	1.18	1.14
TPSH1040-221	220.0 ± 30%	14	4.0	760.0	950.0	0.78	0.72
TPSH1040-331	330.0 ± 30%	14	2.5	1080.0	1350.0	0.62	0.60

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH1050)

Part NO	Inductance (µH)	Q Ref.	SRF (MHz) TYP.	DCR (mΩ)		Irms (A) TYP.	Isat (A) TYP.
				TYP.	MAX.		
TPSH1050-4R7	4.7 ± 30%	13	34.0	14.5	19.0	5.20	5.10
TPSH1050-100	10.0 ± 30%	16	20.0	26.0	34.0	4.40	3.80
TPSH1050-220	22.0 ± 30%	16	10.0	58.0	76.0	2.90	2.70
TPSH1050-330	33.0 ± 30%	14	8.5	70.0	90.0	2.70	2.10
TPSH1050-470	47.0 ± 30%	14	7.0	100.0	130.0	2.10	1.80
TPSH1050-680	68.0 ± 30%	14	6.5	144.0	186.0	1.75	1.45
TPSH1050-101	100.0 ± 30%	16	5.0	198.0	260.0	1.50	1.25
TPSH1050-151	150.0 ± 30%	16	4.0	330.0	430.0	1.15	1.05
TPSH1050-221	220.0 ± 30%	14	3.5	470.0	610.0	0.95	0.88
TPSH1050-331	330.0 ± 30%	11	2.5	690.0	900.0	0.84	0.70
TPSH1050-471	470.0 ± 30%	11	1.9	1050.0	1350.0	0.65	0.55
TPSH1050-681	680.0 ± 30%	11	1.6	1350.0	1760.0	0.56	0.48
TPSH1050-102	1000.0 ± 30%	30	1.4	2120.0	2760.0	0.47	0.40

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Electrical Characteristics (TPSH1065)

Part NO	Inductance (µH)	Q Ref.	SRF (MHz) TYP.	DCR (mΩ)		Irms (A) TYP.	Isat (A) TYP.
				TYP.	MAX.		
TPSH1065-4R2	4.2 ± 30%	14	45	18.0	23.0	5.60	7.00
TPSH1065-6R5	6.5 ± 30%	13	28	28.0	35.0	5.00	7.00
TPSH1065-100	10.0 ± 30%	14	20	33.0	41.0	4.90	4.00
TPSH1065-220	22.0 ± 30%	16	12	58.0	73.0	3.80	2.80
TPSH1065-330	33.0 ± 30%	10	7	93.0	120.0	2.70	2.40
TPSH1065-470	47.0 ± 30%	10	6	165.0	210.0	2.10	2.10
TPSH1065-680	68.0 ± 30%	8	5	195.0	250.0	1.85	1.75
TPSH1065-101	100.0 ± 30%	13	4	234.0	290.0	1.80	1.40

Note:

- **Measuring Frequency. L: 100KHz/0.25v.**
- **IDC:The current when the inductance becomes 35% lower than its nominal value. and temperature rise 40℃ Δt = 40℃ (ta = 20℃).**

Order Codes

Order Codes (TPSH)

TPSH6011	-	1R0	M

Part Number		
TPSH6011	TPSH6013	TPSH6018
TPSH6025	TPSH8028	TPSH8030
TPSH8040	TPSH8043	TPSH8045
TPSH8058	TPSH1028	TPSH1030
TPSH1038	TPSH1040	TPSH1050
TPSH1065		

Inductance	
1R0	1.00µH
120	12.00µH
220	22.00µH
101	100.00µH
102	1000.00µH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSTP) High Current Power Inductors

Product Introduction

Token (TPSTP) High Current Power Inductors Provide Optimum Performance and Efficiency in Real Estate-saving Sizes.

Features :

- Low Core Loss And High Efficiency Performance.
- Closed Magnetic Field Construction For High Density Board Assembly.
- Excellent high frequency characteristics.

Applications :

- TV,VCR,Switching power sources,NC machines.
- Computes systems and Measuring instruments.

Token introduced the semi-shielded inductor series using magnetic epoxy resin as a magnetic shield. As its name suggests, the semi-shielded inductor is design to bridge the performance gap of shielded and non-shielded inductors by offering users an additional selection of inductor series.

To take the advantage of a shielded inductor is its low radiation which can be characterized from its lowest coupling factor among other type of inductors. Whereas the magnetic flux of its non-shielded counterpart is not confined to a given vicinity. These inductors experience the highest coupling factor.

Token Electronics has added those new generation portable products in new ranges of high-current chip inductors, TPSTP2110, TPSTP2112, TPSTP2114, and TPSTP2816, for use in DC-DC converter applications to increase flexibility of maximum height measurements with extended electrical characteristics.

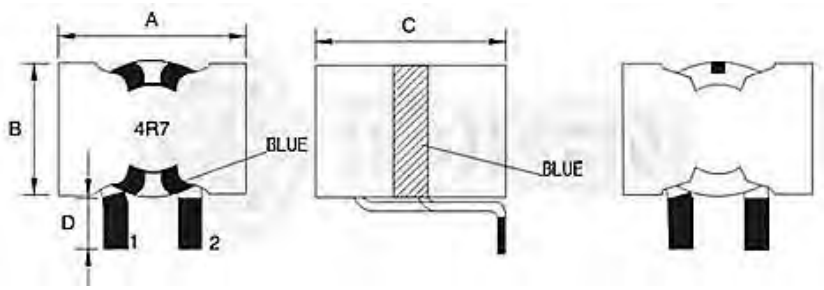
The new ranges deliver a good size/performance ratio with compact packaging size is designed to save space, measuring 21mm x 14.5mm (TPSTP). A wide range of inductances is also available: 0.3µH to 33µH. The parts come with high rated currents, up to 35A, and feature magnetic shielding as standard. Operating temperature range is -55°C to +125°C.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales or link to Token official website "SMD Power Inductors" for more information.

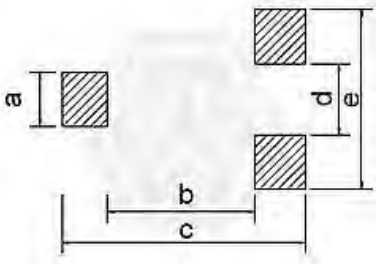
Dimensions

Dimensions & Configurations (Unit: mm) (TPSTP)

ITEM	A	B	C	D
TPSTP2110	21.0±1.0	14.5±1.0	10.0±1.0	3.5±1.0
TPSTP2112	21.0±1.0	14.5±1.0	12.0±1.0	3.5±1.0
TPSTP2114	21.0±1.0	14.5±1.0	14.0±1.0	3.5±1.0
TPSTP2816	21.0±1.0	14.5±1.0	16.0±1.0	3.5±1.0



SMD wirewound power inductor (TPSTP) Structure size



SMD wirewound power inductor (TPSTP) Pad size

2110

Electrical Specification (TPSTP2110)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max	Heat Rating Current DC Amps. Idc (A)
TPSTP2110-R30	0.3	M、N	100/1	1.5	35
TPSTP2110-R50	0.5	M、N	100/1	1.5	35
TPSTP2110-R60	0.6	M、N	100/1	1.5	35
TPSTP2110-R68	0.68	M、N	100/1	1.5	35
TPSTP2110-R80	0.8	M、N	100/1	1.5	35
TPSTP2110-1R0	1.0	M、N	100/1	1.5	35
TPSTP2110-1R2	1.2	M、N	100/1	1.5	35
TPSTP2110-2R0	2.0	M、N	100/1	1.5	35
TPSTP2110-100	10.0	M、N	100/1	3.5	25

Remark:

- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:

- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

2112

Electrical Specification (TPSTP2112)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max	Heat Rating Current DC Amps. Idc (A)
TPSTP2112-R60	0.6	M、N	100/1	1.8	25
TPSTP2112-R68	0.68	M、N	100/1	1.8	25
TPSTP2112-R80	0.8	M、N	100/1	1.8	25
TPSTP2112-1R0	1.0	M、N	100/1	1.8	25
TPSTP2112-1R2	1.2	M、N	100/1	1.8	25
TPSTP2112-2R0	2.0	M、N	100/1	1.8	25

Remark:

- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:.

- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

2114

Electrical Specification (TPSTP2114)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max	Heat Rating Current DC Amps. Idc (A)
TPSTP2114-R80	0.8	M、N	100/1	2.2	21
TPSTP2114-1R0	1.0	M、N	100/1	2.2	21
TPSTP2114-1R2	1.2	M、N	100/1	2.2	21
TPSTP2114-2R0	2.0	M、N	100/1	2.2	21
TPSTP2114-4R0	4.0	M、N	100/1	2.2	21

Remark:
- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:
- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

2816

Electrical Specification (TPSTP2816)

Part No	Inductance (µH)	Tolerance	Test Freq (KHz/V)	DCR (mΩ) Max	Heat Rating Current DC Amps. Idc (A)
TPSTP2816-2R2	2.2	M、N	100/1	2.0	20
TPSTP2816-3R3	3.3	M、N	100/1	2.0	20
TPSTP2816-4R7	4.7	M、N	100/1	2.0	20
TPSTP2816-6R8	6.8	M、N	100/1	2.0	20
TPSTP2816-100	10.0	M、N	100/1	2.0	20
TPSTP2816-150	15.0	M、N	100/1	2.0	20
TPSTP2816-220	22.0	M、N	100/1	2.0	20
TPSTP2816-330	33.0	M、N	100/1	2.0	20

Remark:
- **Rated DC current: it is either the inductance is 20% lower than its initial value. In D.C. saturation characteristics of Temperature Raise becomes Δt=40°C(Ta=20°C),whichever is lower.**

Note:
- **Test equipments L: Agilent HP4284A Precision LCR meter.**
- **Test equipments SRF: Agilent 4291B RF Impedance Analyzer.**
- **Test equipments DCR: CHEN HWA 502BC OHM METER.**
- **Electrical specifications at 25°C. Operating temperature: -55 to 125°C.**

Order Codes

Order Codes (TPSTP)

TPSTP2110	-	100	M

Part Number
TPSTP2110
TPSTP2112
TPSTP2114
TPSTP2816

Inductance	
R30	0.30 µH
1R0	1.00 µH
100	10.00 µH

Tolerance	
J	± 5%
K	± 10%
L	± 15%
M	± 20%
P	± 25%
N	± 30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPSTX) SMD Compact Power Toroidal Inductors

Product Introduction

Token SMD Compact Power Toroidal Inductors are bursting with energy.

Features :

- Maximum power density.
- Closed magnetic circuit for lowest EMI.
- Toroidal with powdered iron cores & low cost.

Applications :

- Power Supply Applications.
- Output Ripple Current Filter.
- VGA Card.

Token Power Solutions has enhanced its toroidal surface-mount inductor portfolios with the addition of four new ranges (TPSTX-2P/2S/4P/4S) of RoHS compliant components.

This (TPSTX) Range of low EMI toroidal inductor is based on iron powder cores, for good suppression performance at high frequencies, high overload capability, low flux-leakage, economical pricing, and optimized for use as high frequency DC chokes.

These low cost surface-mount toroidal inductors meanwhile are designed for use in switching AC/DC power supplies and DC/DC converters. The (TPSTX) series offer low DC resistance and is available with current ratings up to 7.9 A IDC and inductance values that range from 0.49 uH to 1201.70 uH.

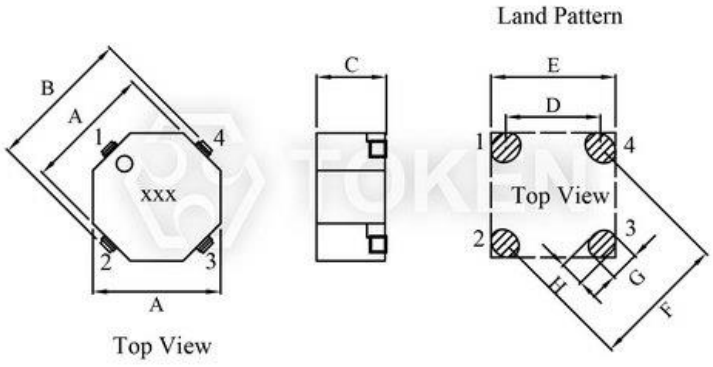
The height of TPSTX-2P and TPSTX-2S is 5.96 mm (Max.), and TPSTX-4P and TPSTX-4S is 7.00 mm (Max.). These low-profile design makes them ideal for use in designs where component height is restricted. The toroid core offers compact size with minimal external magnetic fields and is ideal for low voltage applications, particularly the latest generation of low voltage microprocessors.

Custom parts are available on request. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements.Please contact our sales or link to Token official website “SMD Power Inductors” for more information.

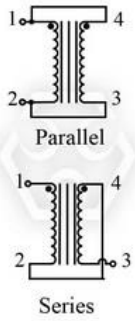
Dimensions

Power Toroidal Inductor Dimensions & Configurations (TPSTX-2P/2S/4P/4S)

Type	A ± 0.5	B ± 0.5	C Max.	D	E	F	G	H
TPSTX-2P	9.00	11.60	5.96	7.04	10.72	9.96	3.68	3.05
TPSTX-4P	11.40	14.40	7.00	8.84	12.50	12.50	4.06	3.05
TPSTX-2S	9.00	11.60	5.96	7.04	10.72	9.96	3.68	3.05
TPSTX-4S	11.40	14.40	7.00	8.84	12.50	12.50	4.06	3.05



Low EMI Toroidal (TPSTX-2P/2S/4P/4S) Dimensions



Series & Parallel Graph

- **Note: Design as Customer's Requested Specifications.**

TPSTX-2P

Electrical Characteristics (TPSTX-2P) Parallel Type

Part Number	L (µH) ±20%	L @ IDC (µH) Min.	DCR (Ω) Max.	IDC (A) Max.
TPSTX-2P-R47	0.54	0.42	0.006	5.90
TPSTX-2P-R68	0.85	0.64	0.008	5.40
TPSTX-2P-1	1.22	0.89	0.009	5.00
TPSTX-2P-2	2.18	1.56	0.014	3.90
TPSTX-2P-5	4.90	3.57	0.032	2.50
TPSTX-2P-8	7.65	5.31	0.040	2.30
TPSTX-2P-10	9.83	6.73	0.045	2.10
TPSTX-2P-15	14.99	10.51	0.085	1.60
TPSTX-2P-20	19.58	13.37	0.097	1.50
TPSTX-2P-25	24.79	16.60	0.109	1.40
TPSTX-2P-33	32.67	21.29	0.126	1.30
TPSTX-2P-50	49.10	35.31	0.306	0.82
TPSTX-2P-68	68.85	47.93	0.362	0.76
TPSTX-2P-100	99.14	69.56	0.541	0.62
TPSTX-2P-150	148.10	100.07	0.666	0.56
TPSTX-2P-200	201.59	138.49	0.951	0.46
TPSTX-2P-300	300.42	197.52	1.176	0.42

Note:

- **Test Freq.: 1KHz / 0.25V.**
- **Operating Temp.: -40℃ ~ +85℃.**

TPSTX-2S

Electrical Characteristics (TPSTX-2S) Series Type

Part Number	L (µH) ±20%	L @ IDC (µH) Min.	DCR (Ω) Max.	IDC (A) Max.
TPSTX-2S-2	2.18	1.69	0.024	2.95
TPSTX-2S-3	3.40	2.55	0.029	2.70
TPSTX-2S-5	4.90	3.57	0.034	2.50
TPSTX-2S-9	8.70	6.26	0.056	1.95
TPSTX-2S-20	19.58	14.26	0.128	1.25
TPSTX-2S-30	30.60	21.23	0.159	1.15
TPSTX-2S-40	39.30	26.92	0.179	1.05
TPSTX-2S-60	59.98	42.02	0.339	0.80
TPSTX-2S-80	78.34	53.48	0.387	0.75
TPSTX-2S-100	99.14	66.38	0.436	0.70
TPSTX-2S-130	130.70	85.17	0.503	0.65
TPSTX-2S-200	196.38	141.24	1.221	0.41
TPSTX-2S-280	275.40	191.71	1.447	0.38
TPSTX-2S-400	396.58	278.22	2.162	0.31
TPSTX-2S-600	592.42	400.27	2.661	0.28
TPSTX-2S-800	806.34	553.97	3.804	0.23
TPSTX-2S-1200	1201.70	790.08	4.703	0.21

Note:

- **Test Freq.: 1KHz / 0.25V.**
- **Operating Temp.: -40℃ ~ +85℃.**

TPSTX-4P

Electrical Characteristics (TPSTX-4P) Parallel Type

Part Number	L (µH) ±20%	L @ IDC (µH) Min.	DCR (Ω) Max.	IDC (A) Max.
TPSTX-4P-R47	0.49	0.37	0.005	7.90
TPSTX-4P-R68	0.76	0.56	0.006	7.20
TPSTX-4P-1	1.10	0.81	0.009	5.90
TPSTX-4P-2	1.95	1.42	0.014	4.60
TPSTX-4P-5	5.15	3.56	0.027	3.30
TPSTX-4P-8	7.81	5.15	0.033	3.00
TPSTX-4P-10	9.88	6.70	0.047	2.50
TPSTX-4P-15	14.76	9.52	0.057	2.30
TPSTX-4P-20	20.62	13.44	0.085	1.90
TPSTX-4P-25	25.65	17.17	0.116	1.60
TPSTX-4P-33	33.21	22.93	0.166	1.30
TPSTX-4P-50	48.80	32.21	0.202	1.20
TPSTX-4P-68	67.37	43.04	0.238	1.10
TPSTX-4P-100	99.09	69.54	0.565	0.72
TPSTX-4P-150	149.45	101.46	0.696	0.64
TPSTX-4P-200	200.11	131.37	0.810	0.60
TPSTX-4P-300	298.93	188.03	1.003	0.54

Note:

- **Test Freq.: 1KHz / 0.25V.**
- **Operating Temp.: -40°C ~ +85°C.**

TPSTX-4S

Electrical Characteristics (TPSTX-4S) Series Type

Part Number	L (µH) ±20%	L @ IDC (µH) Min.	DCR (Ω) Max.	IDC (A) Max.
TPSTX-4S-2	1.95	1.49	0.019	3.95
TPSTX-4S-3	3.05	2.24	0.023	3.60
TPSTX-4S-4	4.39	3.24	0.034	2.95
TPSTX-4S-8	7.81	5.69	0.055	2.30
TPSTX-4S-20	20.62	14.23	0.107	1.65
TPSTX-4S-30	31.23	20.61	0.131	1.50
TPSTX-4S-40	39.53	26.79	0.187	1.25
TPSTX-4S-60	59.05	38.09	0.228	1.15
TPSTX-4S-80	82.47	53.76	0.337	0.95
TPSTX-4S-100	102.60	68.68	0.462	0.80
TPSTX-4S-130	132.86	91.72	0.663	0.65
TPSTX-4S-200	195.20	128.83	0.805	0.60
TPSTX-4S-270	269.50	172.16	0.952	0.55
TPSTX-4S-400	396.38	278.15	2.259	0.36
TPSTX-4S-600	597.80	405.83	2.784	0.32
TPSTX-4S-800	800.44	525.47	3.240	0.30
TPSTX-4S-1200	1195.72	752.13	4.011	0.27

Note:

- **Test Freq.: 1KHz / 0.25V.**
- **Operating Temp.: -40°C ~ +85°C.**

Order Codes

Parallel & Series Power Toroidal Inductors Order Codes (TPSTX-2P/2S/4P/4S)

TPSTX-2P-R47
Part Number
TPSTX-2P-R47
TPSTX-4P-R68
TPSTX-2S-800
TPSTX-4S-130
...

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Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

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- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPUDF)
Power Wirewound Inductors

Product Introduction

Token (TPUDF) unshielded Power inductor serves as a high-performing, space-saving and power-saving solution.

Features :

- The surface mount inductors are designed for the smallest Possible size and high performance.
- They are with high Energy storage and very low resistance making them the Ideai inductors for DC-DC conversion in the following Application.

Applications :

- VGA display card, Notebook computers, PDAs, Step-up and Setp-down converters, Flash memory programmers, etc.

Token SMD unshielded Power Wirewound Inductors (TPUDF) provide full range inductance. (TPUDF) series metalized drum core design utilizes board space and general use by Token's automatic wire wound technology and ferrite core.

The TPUDF wire-wound open magnetic circuit construction are particularly suitable for cost-critical mass applications and thanks to their surface-mounting capability. These material saving power inductors are ideal for applications such as storage chokes in DC/DC convertors as well as in the EMC sector.

The TPUDF series is designed for DC-DC converter applications and features reduced DC resistance and increased allowable current. In DC-DC converters and power supplies, the performance of the power components directly affects the overall efficiency of the supply, so it is of paramount importance.

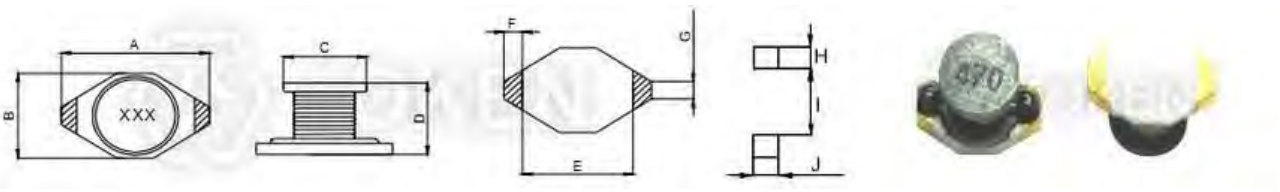
The TPUDF series features wide inductance range from 1.00 µH to 1000.00 µH. The TPU5022DF version has an insertion height of 7.11 mm with low DC resistance down to 0.009 Ohm. Available inductance values for the new TPU5022DF are from 1.00 uH to 1000.00 uH with rated current up to 20.00 A. Thanks to its temperature stability, it can be used in ambient temperatures ranging from -40°C to +85°C.

Token SMT unshielded wire wound inductors TPUDF series conforms to the RoHS directive and Lead-free. Custom parts are available on request for tighter tolerances. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

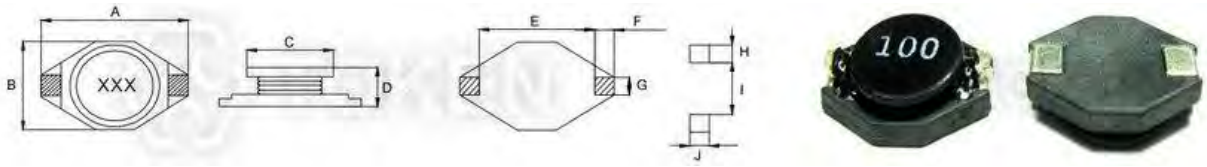
Dimensions & Configurations (Unit: mm) (TPUDF1608)

Part NO	A Max.	B Max.	C Max.	D Max.	E Ref.	F Ref.	G Ref.	H Ref.	I Ref.	J Ref.
TPUDF1608	6.60	4.45	3.94	2.92	4.32	1.02	1.27	1.40	4.06	3.56



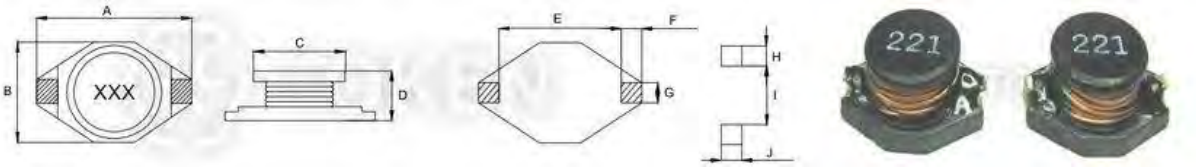
Dimensions & Configurations (Unit: mm) (TPUDF3308)

Part NO	A Max.	B Max.	C Max.	D Max.	E Ref.	F Ref.	G Ref.	H Ref.	I Ref.	J Ref.
TPUDF3308	12.95	9.40	8.38	3.00	7.62	2.54	2.54	2.92	7.37	2.79



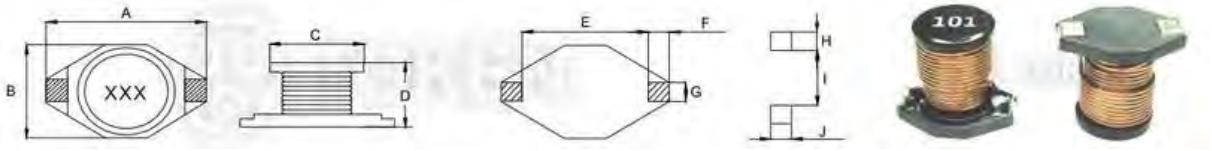
Dimensions & Configurations (Unit: mm) (TPUDF3316)

Part NO	A Max.	B Max.	C Max.	D Max.	E Ref.	F Ref.	G Ref.	H Ref.	I Ref.	J Ref.
TPUDF3316	12.95	9.40	8.38	5.12	7.62	2.54	2.54	2.92	7.37	2.79



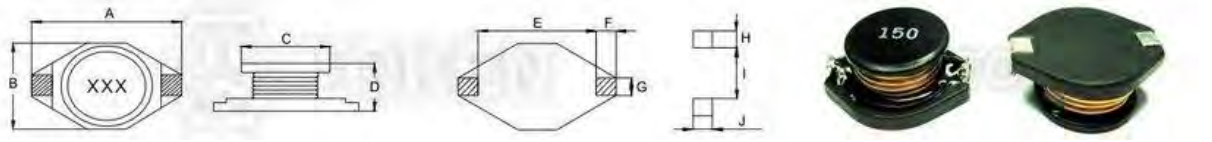
Dimensions & Configurations (Unit: mm) (TPUDF3340)

Part NO	A Max.	B Max.	C Max.	D Max.	E Ref.	F Ref.	G Ref.	H Ref.	I Ref.	J Ref.
TPUDF3340	12.95	9.40	8.38	11.43	7.62	2.54	2.54	2.92	7.37	2.92



Dimensions & Configurations (Unit: mm) (TPUDF5022)

Part NO	A Max.	B Max.	C Max.	D Max.	E Ref.	F Ref.	G Ref.	H Ref.	I Ref.	J Ref.
TPUDF5022	18.45	15.24	12.70	7.11	12.70	2.54	2.54	2.92	12.45	2.79



TPUDF

Electrical Characteristics (TPUDF)

Inductance (µH)		TPUDF1608		TPUDF3308		TPUDF3316		TPUDF3340		TPUDF5022	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
1R0	1.0	0.05	2.90			0.009	9.0			0.009	20.0
1R5	1.5	0.05	2.60			0.010	8.0				
2R2	2.2	0.07	2.30			0.012	7.0			0.014	16.0
3R3	3.3	0.08	2.00			0.015	6.4			0.020	12.0
3R9											
4R7	4.7	0.09	1.50			0.018	5.4				
5R6										0.020	12.0
6R8	6.8	0.13	1.20			0.027	4.6				
8R2											
100	10	0.16	1.10	0.11	2.4	0.038	3.8	0.040	8.0	0.031	10.0
150	15	0.23	0.90	0.15	2.0	0.046	3.0	0.05	7.00	0.036	8.0
220	22	0.37	0.70	0.23	1.6	0.085	2.6	0.066	5.50	0.047	7.0
270											
300											
330	33	0.51	0.58	0.30	1.4	0.10	2.0	0.080	4.00	0.066	5.5
390											
470	47	0.64	0.50	0.39	1.0	0.14	1.6	0.110	3.80	0.086	4.5
560											
680	68	0.86	0.40	0.66	0.9	0.20	1.4	0.17	3.00	0.13	3.5
820											
101	100	1.27	0.31	0.84	0.7	0.28	1.2	0.22	2.5	0.19	3.0
151	150	2.00	0.27	1.2	0.6	0.4	1.0	0.34	2.00	0.25	2.6
181											
221	220	2.65	0.22	1.9	0.5	0.61	0.8	0.440	1.60	0.38	2.4
271											
331	330	3.80	0.18	2.7	0.4	1.02	0.6	0.7	1.20	0.56	1.9
391											
471	470	5.06	0.16	4.0	0.3	1.27	0.5	0.95	1.00	0.85	1.4
561											
681	680			5.3	0.2	2.02	0.4	1.200	1.00	1.10	1.2
102	1000	13.80	0.10	2.000	0.80	1.80	1.0				

Note:

- **Test Freq. L: 1.0 µH～82µH (100KHz / 0.25V),100µH Above (1KHz / 0.3V).**
- **IDC：The current when the inductance becomes 10% lower than its nominal value.(ta=20°C).**

Order Codes

Order Codes (TPUDF)

TPUDF1608	-	1R0	M

Part Number
TPUDF1608
TPUDF3308
TPUDF3316
TPUDF3340
TPUDF5022

Inductance	
1R0	1.00μH
100	10.00μH
101	100.00μH
102	1000.00μH

Tolerance	
J	5%
K	10%
L	15%
M	20%
P	25%
N	30%

General Information

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Quickly Search Inductor Finder

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By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

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Find Inductor Solutions Faster

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Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPUDHP) High Current Power Inductors

Product Introduction

Token's Power Inductors utilize wire wound technology enabling up to 30A high current.

Features :

- Miniature surface mount design.
- Very low resistance. Maximum power density.
- High power, High saturation inductors.

Applications :

- Personable computers, DC/DC Converters.
- LCD televisions, Power supply for VTRs.

Token SMD unshielded (TPUDHP) series utilize wire wound technology with open magnetic circuit construction enabling cost-effective in manufacturing high rated current, low ohmic resistance products.

The power (TPUDHP) inductors are wound around a ferrite core and are particularly suitable for cost-critical mass applications with their surface-mounting capability. These material saving (TPUDHP) inductors are ideal for applications such as storage chokes in DC/DC convertors as well as in the EMC sector.

TPU3316DHP wire wound with Mn-Zn material core rugged self-leaded construction composites for low-voltage and large-current DC-DC converter. Available inductance values for the TPU3316DHP are from 0.33 µH to 4.70 µH with rated current up to 20.00 A.

TPU1813DHP rugged self-leaded construction with advance wire wound technology enables large current, lower DCR, and less than 5.0mm height. It is ideal for high power DC-DC applications. Inductance values for the TPU1813DHP are from 0.18 µH to 100 µH with rated current up to 14 A.

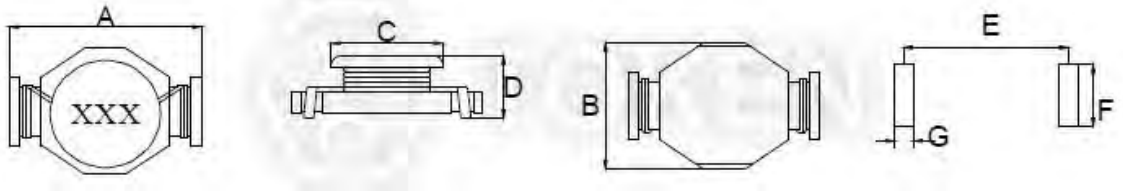
TPU5022DHP's self-leaded and open magnetic circuit construction is specified for high current applications with up to 30.00 A IDC. Inductance range from 0.78 µH to 15.00 µH.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPUDHP)

Type	A Max.	B Max.	C ± 0.3	D Max.	E Ref.	F Ref.	G Ref.
TPU1813DHP	8.89	6.10	4.57	5.00	6.99	4.00	1.90
TPU3316DHP	13.21	9.91	8.38	6.35	10.16	4.05	1.50
TPU5022DHP	22.35	16.26	12.7	8.00	17.53	8.65	3.20



SMD Unshielded (TPUDHP) Dimensions

Note: Design as Customer's Requested Specifications.

TPU1813DHP

Electrical Characteristics (TPU1813DHP)

Part number	Inductance (µH)	DCR (Ω) Max	SRF (MHz)	Isat (A)	Irms (A)
TPU1813DHP-R18	0.18	0.003	800	14.0	10.0
TPU1813DHP-R33	0.33	0.004	600	10.0	7.0
TPU1813DHP-R56	0.56	0.010	200	7.7	6.0
TPU1813DHP-1R2	1.2	0.017	140	5.3	4.4
TPU1813DHP-2R2	2.2	0.035	100	3.5	3.1
TPU1813DHP-3R3	3.3	0.040	80	3.0	2.7
TPU1813DHP-4R7	4.7	0.054	50	2.6	2.2
TPU1813DHP-6R8	6.8	0.080	45	2.2	1.8
TPU1813DHP-100	10	0.111	40	1.9	1.5
TPU1813DHP-150	15	0.170	30	1.5	1.2
TPU1813DHP-220	22	0.250	25	1.2	1.0
TPU1813DHP-330	33	0.350	20	0.99	0.82
TPU1813DHP-470	47	0.470	15	0.87	0.72
TPU1813DHP-680	68	0.730	10	0.67	0.56
TPU1813DHP-101	100	1.110	8	0.53	0.47

TPU3316DHP

Electrical Characteristics (TPU3316DHP)

Part number	Inductance (µH)	DCR (Ω) Max	SRF (MHz)	Isat (A)	Irms (A)
TPU3316DHP-R33	0.33	0.002	300	20.0	16.0
TPU3316DHP-R68	0.68	0.005	200	13.0	12.0
TPU3316DHP-1R0	1.0	0.006	100	11.0	10.0
TPU3316DHP-1R5	1.5	0.008	90	9.0	9.0
TPU3316DHP-2R2	2.2	0.011	90	7.8	7.4
TPU3316DHP-3R3	3.3	0.014	65	6.4	5.9
TPU3316DHP-4R7	4.7	0.018	45	5.4	4.8

TPU5022DHP

Electrical Characteristics (TPU5022DHP)

Part number	Inductance (µH)	DCR (Ω) Max	SRF (MHz)	Isat (A)	Irms (A)
TPU5022DHP-R78	0.78	0.0026	156	30.0	15.0
TPU5022DHP-1R5	1.5	0.0040	100	25.0	15.0
TPU5022DHP-2R2	2.2	0.0061	75	20.0	12.0
TPU5022DHP-3R3	3.3	0.0086	60	17.0	10.0
TPU5022DHP-4R7	4.7	0.014	40	13.0	8.4
TPU5022DHP-100	10	0.026	28	10.0	6.0
TPU5022DHP-150	15	0.032	20	8.0	4.4

Order Codes

Order Codes (TPU1813DHP)

TPU1813DHP	-	R18	M

Part Number
TPU1813DHP
TPU3316DHP
TPU5022DHP

Inductance	
R18	0.18µH
1R2	1.20µH
100	10.00µH
101	100.00µH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

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We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPULF) Power Inductors

Product Introduction

Token TPULF Unshielded SMD Power Inductors Cut Down On Resistance.

Features :

- Low profile (3.5mm Height and 7.4mm Width max.)
- High-Current Inductor with Lowest DCR.

Applications :

- Notebook, Portable communication equipments, DC/DC converters, etc..

Token produces a wide and varied range of surface mount inductors that are ideal for all portable applications. Other application areas include: telecommunications, consumer and industrial electronics. In order to handle high rated current, SMD inductors must have a low ohmic resistance and minimal losses at high frequencies. Token (TPULF7032/7045) surface mount unshielded series are designed for high-current with lowest DCR wire-wound inductors.

With a footprint of 7.4 x 7.4 mm, the (TPULF7032) version has an insertion height of 3.5 mm. Available inductance values for the new (TPULF7032) are from 1.00 uH to 100.00 uH with rated current up to 2.88A. With inductance values from 1.00 uH to 1000.00 uH, the (TPULF7045) has a rated current up to 2.8A. Thanks to its temperature stability, it can be used in ambient temperatures ranging from -40°C ~ +85°C.

The chip inductors are wound around a ferrite core and are particularly suitable for cost-critical mass applications thanks to their surface-mounting capability. These material saving power inductors are ideal for applications such as storage chokes in DC/DC convertors as well as in the EMC sector.

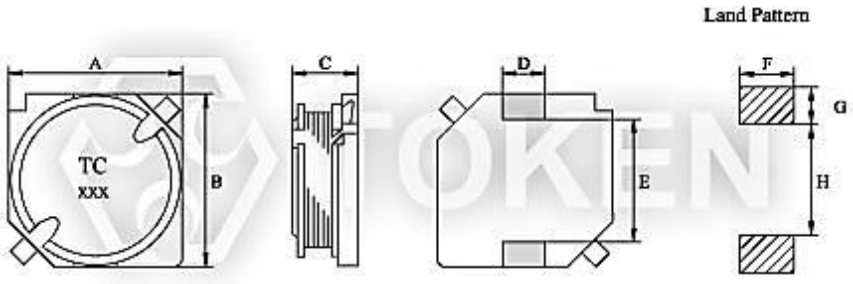
Token (TPULF7032/7045) series conform to the RoHS directive and Lead-free. Custom parts are available on request.

Token will also produce devices outside these specifications to meet specific customer requirements, Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPULF7032/7045)

Type	A Max.	B Max.	C Max.	D ± 0.2	E Max.	F	G	H
TPULF7032	7.4	7.4	3.5	2.0	5.4	3.0	2.0	4.4
TPULF7045	7.4	7.4	5.1	2.0	5.4	3.0	2.0	4.4



SMD Unshielded Power (TPULF7032/7045) Dimensions

Note: Design as Customer's Requested Specifications.

TPULF7032

Electrical Characteristics (TPULF7032)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPULF7032 - 1R0M	1.00	1	0.022	2.88
TPULF7032 - 1R5M	1.50	1	0.026	2.67
TPULF7032 - 2R2M	2.20	1	0.032	2.40
TPULF7032 - 3R3M	3.30	1	0.041	2.08
TPULF7032 - 4R7M	4.70	1	0.049	1.92
TPULF7032 - 6R8M	6.80	1	0.067	1.60
TPULF7032 - 100M	10.00	1	0.085	1.41
TPULF7032 - 120M	12.00	1	0.100	1.28
TPULF7032 - 150M	15.00	1	0.130	1.12
TPULF7032 - 180M	18.00	1	0.160	1.00
TPULF7032 - 220M	22.00	1	0.180	0.93
TPULF7032 - 270M	27.00	1	0.240	0.80
TPULF7032 - 330M	33.00	1	0.290	0.72
TPULF7032 - 390M	39.00	1	0.340	0.66
TPULF7032 - 470M	47.00	1	0.410	0.59
TPULF7032 - 560M	56.00	1	0.480	0.55
TPULF7032 - 680M	68.00	1	0.600	0.49
TPULF7032 - 820M	82.00	1	0.710	0.44
TPULF7032 - 101M	100.00	1	0.950	0.38

Note:

- **Test Freq.: 1KHz / 0.25V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=10% typ. at IDC.**

TPULF7045

Electrical Characteristics (TPULF7045)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPULF7045 - 1R0M	1.00	1	0.023	2.880
TPULF7045 - 1R5M	1.50	1	0.028	2.560
TPULF7045 - 2R2M	2.20	1	0.032	2.360
TPULF7045 - 2R7M	2.70	1	0.035	2.360
TPULF7045 - 3R3M	3.30	1	0.038	2.160
TPULF7045 - 3R9M	3.90	1	0.042	2.160
TPULF7045 - 4R7M	4.70	1	0.049	1.880
TPULF7045 - 5R6M	5.60	1	0.055	1.880
TPULF7045 - 6R8M	6.80	1	0.060	1.680
TPULF7045 - 8R2M	8.20	1	0.067	1.680
TPULF7045 - 100M	10.00	1	0.070	1.560
TPULF7045 - 120M	12.00	1	0.080	1.440
TPULF7045 - 150M	15.00	1	0.090	1.360
TPULF7045 - 180M	18.00	1	0.100	1.280
TPULF7045 - 220M	22.00	1	0.120	1.170
TPULF7045 - 270M	27.00	1	0.140	1.070
TPULF7045 - 330M	33.00	1	0.160	1.000
TPULF7045 - 390M	39.00	1	0.190	0.910
TPULF7045 - 470M	47.00	1	0.220	0.840
TPULF7045 - 560M	56.00	1	0.290	0.720
TPULF7045 - 680M	68.00	1	0.340	0.660
TPULF7045 - 820M	82.00	1	0.460	0.580
TPULF7045 - 101M	100.00	1	0.550	0.510
TPULF7045 - 121M	120.00	1	0.670	0.420
TPULF7045 - 151M	150.00	1	0.900	0.370
TPULF7045 - 181M	180.00	1	1.050	0.350
TPULF7045 - 221M	220.00	1	1.350	0.290
TPULF7045 - 271M	270.00	1	1.550	0.280
TPULF7045 - 331M	330.00	1	2.050	0.230
TPULF7045 - 391M	390.00	1	2.300	0.215
TPULF7045 - 471M	470.00	1	2.600	0.195
TPULF7045 - 561M	560.00	1	2.900	0.185
TPULF7045 - 681M	680.00	1	3.400	0.170
TPULF7045 - 821M	820.00	1	4.200	0.165
TPULF7045 - 102M	1000.00	1	5.390	0.150

Note:

- **Test Freq.: 1KHz / 0.25V.**
- **Operating Temp.: -40°C ~ +85°C.**
- **Inductance drop=10% typ. at IDC.**

Order Codes

Order Codes (TPULF7032/7045)

TPULF7032	-	1R0	M

Part Number
TPULF7032
TPULF7045

Inductance	
1R0	1.00μH
120	12.00μH
121	120.00μH

Tolerance	
K	10%
L	15%
M	20%
N	30%

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We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPUME) High Frequency Power Inductors

Product Introduction

High frequency design, outstanding Q values, superior SRF, all packaged in Token (TPUME) Inductors.

Features :

- High reilbility, excellent thermal stability.
- Flat bottom surface ensures secure, reliable mounting.
- High frequency design, excellent Q values, excellent SRF.
- Provided in embossed carrier tape packaging for use with Automatic mounting machines.

Applications :

- Networking system, computer products and peripherals.
- Modems,mobile radios, cordless telephones, XDSL filter.
- Global positioning Systems, wireless communications equipment.

The Token (TPUME) latest devices offer the advantages of wirewound construction, and are designed with an iron core that features high saturation current and unshielded construction for high reilbility and great thermal stability.

Token Electronics has added new ranges of low-profile wire wound chip inductors, TPUME1206, TPUME1210L, TPUME1210, TPUME1812, and TPUME2220, for use in wireless communication equipments to increase flexibility of maximum height measurements with extended electrical characteristics.

The new (TPUME) series is designed to provide a good balance of performance and height within chip power miniature inductor offering. The TPUME1206 series is developed to have very compact footprint 3.2 mm x 2.3 mm with low profile 1.8 mm. The TPUME2220 series were developed to have a low DCR 0.039 ohm. Those TPUME family enables efficiency and flexibility.

All (TPUME) winding chip coils offer low DC resistance and large rated current. This is vital for computer product applications as it prevents energy dissipation from the chip inductor, improving the converter's overall efficiency.

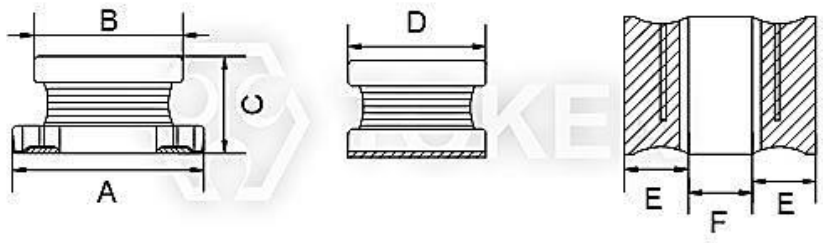
The new ranges deliver a good size/performance ratio with low DC resistances from 0.039 Ω to 66.1 Ω. A wide range of inductances is also available from 1.0 µH to 2200 µH. The parts come with high rated currents up to 4 A, and feature magnetic unshielding as standard.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPUME)

Part NO	A±0.3	B±0.3	C±0.3	D Ref.	E Ref.	F Ref.
TPUME1206	3.2	2.3	1.8	1.6	0.9	1.3
TPUME1210L	3.2	2.5	1.55	2.5	0.9	1.3
TPUME1210	3.2	2.5	2.0	2.5	0.9	1.3
TPUME1812	4.5	3.6	2.6	3.2	1.6	1.3
TPUME2220	5.7	5.0	4.7	5.0	2.0	1.7



SMD power winding inductor (TPUME) Dimensions (Unit: mm)

TPUME

Electrical Specification (TPUME)

Inductance (µH)		TPUME1206		TPUME1210L		TPUME1210		TPUME1812		TPUME2220	
Marking	L (µH)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)	DCR (Ω) Max.	IDC (A)
1R0	1.0	0.104	0.175	0.06	1.48	0.057	0.445	0.045	0.5	0.039	4.00
1R2	1.2	0.118	0.165			0.064	0.425	0.048	0.5	0.042	3.8
1R5	1.5	0.157	0.155			0.079	0.4	0.057	0.5	0.049	3.7
1R8	1.8	0.196	0.050	0.101	1.31	0.088	0.39	0.06	0.5		
2R2	2.2	0.260	0.14	0.125	1.25	0.096	0.37	0.072	0.5	0.062	3.2
2R7	2.7	0.29	0.135			0.129	0.32	0.081	0.5	0.069	3
3R3	3.3	0.33	0.13	0.16	1.08	0.153	0.3	0.088	0.5	0.075	2.9
3R9	3.9	0.35	0.125			0.166	0.29	0.094	0.5	0.086	2.8
4R7	4.7	0.4	0.12	0.236	0.98	0.222	0.27	0.111	0.5	0.103	2.7
5R6	5.6	0.54	0.115	0.287	0.9	0.233	0.25	0.13	0.5	0.118	2.4
6R8	6.8	0.59	0.11	0.371	0.79	0.3	0.24	0.16	0.45	0.126	2.00
8R2	8.2	0.82	0.105	0.471	0.72	0.38	0.225	0.191	0.45	0.14	1.8
100	10	0.97	0.1	0.576	0.66	0.43	0.19	0.225	0.4	0.159	1.7
120	12	1.03	0.095	0.684	0.59	0.48	0.18	0.25	0.38	0.187	1.5
150	15	1.14	0.09	0.888	0.54	0.64	0.17	0.31	0.36	0.21	1.4
180	18	1.27	0.085	1.087	0.48	0.87	0.165	0.38	0.34	0.26	1.3
220	22	1.52	0.085	1.343	0.43	0.98	0.15	0.43	0.32	0.3	1.2
270	27	2.09	0.085			1.11	0.125	0.56	0.3	0.36	1.1
330	33	2.51	0.085	2.245	0.35	1.51	0.115	0.62	0.27	0.42	0.9
390	39	3.6	0.085			1.64	0.11	0.79	0.24	0.51	0.85
470	47	4.1	0.085	3.064	0.29	2.15	0.1	0.9	0.22	0.56	0.8
560	56	4.54	0.08	4.12	0.27	2.55	0.085	1.11	0.2	0.69	0.7
680	68	5.03	0.08	5.289	0.24	2.86	0.08	1.24	0.68	0.79	0.64
820	82	5.64	0.08	7.223	0.2	3.25	0.07	1.59	0.17	0.98	0.6
101	100	6.3	0.08	8.209	0.19	4.6	0.08	1.78	0.16	1.02	0.56
121	120	13.39	0.07	10.888	0.17	6.84	0.075	2.43	0.15	1.27	0.5
151	150	14.75	0.07	12.568	0.16	7.79	0.07	2.7	0.13	1.44	0.42
181	180	16.16	0.07	19.645	0.14	8.55	0.065	3.03	0.12	1.83	0.37
221	220	24.33	0.05	22.307	0.13	9.58	0.065	4.25	0.11	2.51	0.32
271	270	29.7	0.011	24.613	0.12	10.88	0.065	5.72	0.1	2.72	0.29
331	330	43.06	0.01	28.213	0.11	16.80	0.065	6.49	0.095	3.56	0.27
391	390	51	0.009	32.187	0.1	17.9	0.05	7.22	0.09	3.99	0.25
471	470	53.5	0.008	48.474	0.09	19.4	0.045	8.27	0.08	5.2	0.24
561	560			53.893	0.08	24.2	0.04	11.67	0.07	5.74	0.22
681	680			63.013	0.07			13.13	0.065	6.75	0.19
821	820	66.1	0.005					14.43	0.06	8.56	0.17
102	1000							19.37	0.05	9.56	0.15
122	1200							23.8	0.045	13.1	0.12
152	1500							26.5	0.04	14.8	0.1
182	1800							30.8	0.035	19.0	0.1
222	2200							48.8	0.03	20.3	0.09

Note:

- **Measuring Frequency. L: <100µH Above(100KHz/0.25v) L:>100µH Above(1KHz/0.25v).**
- **IDC:The current when the inductance becomes 10% lower than its nominal value.(ta=20°C).**

Order Codes

Order Codes (TPUME)

TPUME1206	-	1R0	M

Part Number
TPUME1206
TPUME1210L
TPUME1210
TPUME1812
TPUME2220

Inductance	
1R0	1.00μH
100	10.00μH
101	100.00μH
102	1000.00μH

Tolerance	
J	± 5%
K	± 10%
L	± 15%
M	± 20%
P	± 25%
N	± 30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

Quickly Search Inductor Finder

Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPUA) Miniature Power Wirewound Inductors

Product Introduction

Token has extended range of SMD miniature power wirewound inductors with new SMD series.

Features :

- Superior to be high Saturation for surface mounting.
- High heat resistance and excellent solderability.
- Excellent terminal strength construction.

Applications :

- Power supply for VCRS, OA equipment Digital camera.
- LCD television set notebook PC, DC-DC Converters.
- Portable communication equipments, etc.

Miniaturisation of today's electrical and electronic devices requires component manufacturers to increase the performance of components without increasing footprint. Token's latest miniature (TPUA) power wirewound chip inductor series offers improved performance in the same compact, low-profile case size.

The (TPUA) series is designed for DC-DC converter applications and features reduced DC resistance and increased allowable current. In DC-DC converters and power supplies, the performance of the power components directly affects the overall efficiency of the supply, so it is of paramount importance.

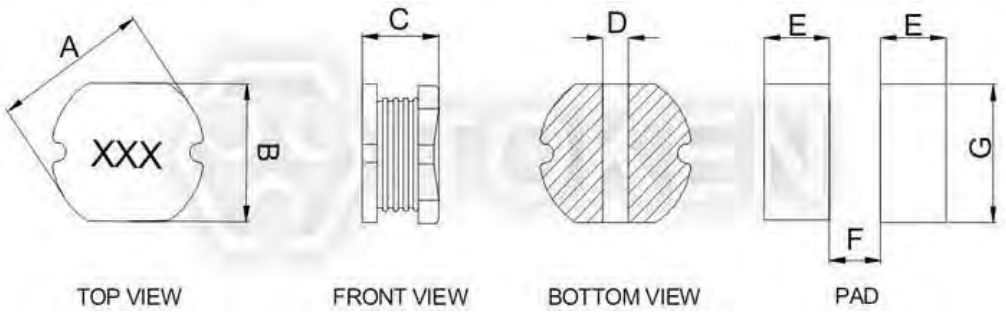
The (TPU31A) series of wirewound SMD inductor comes with low profile at 1.6±0.3 mm maximum and available in 2.2 µH to 27 µH denominations. The series features low DC resistance, down to 0.09 Ω, and high rated current; up to 1.8 A is supported. All parts are low cast with open magnetic circuit construction and good for high mounting density.

Full (TPUA) series conform to the RoHS directive and Lead-free. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

Dimensions & Configurations (Unit: mm) (TPUA)

Type	A±0.3	B±0.3	C±0.3	D Ref.	E Ref.	F Ref.	G Ref.
TPUA31	3.5	3.0	1.6	1.2	1.1	1.2	3.5
TPUA32	3.5	3.0	2.1	1.2	1.4	1.2	3.5
TPUA42	4.5	4.0	2.1	1.5	1.75	1.5	4.5
TPUA43	4.5	4.0	3.2	1.5	1.75	1.5	4.5
TPUA52	5.8	5.2	2.1	1.6	2.15	1.7	5.5
TPUA53	5.8	5.2	3.2	1.6	2.15	1.7	5.5
TPUA54	5.8	5.2	4.5	1.6	2.15	1.7	5.5
TPUA73	7.8	7.0	3.5±0.4	2.4	3.0	2.0	7.5
TPUA75	7.8	7.0	5.0±0.4	2.4	3.0	2.0	7.5
TPUA104	10.0	9.0	4.0±0.5	3.1	3.75	2.5	9.5
TPUA105	10.0	9.0	5.4±0.5	3.1	3.75	2.5	9.5
TPUA106	10.0	9.0	6.6±0.5	3.1	3.75	2.5	9.5
TPUA108	10.0	9.0	8.0±0.5	3.1	3.75	2.5	9.5



SMT Unshielded Dimensions (TPUA)

Note: Design as Customer's Requested Specifications.

TPUA31

Electrical Characteristics (TPUA31)

Part No	Inductance L (µH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA31 - 2R2M	2.2	M、N	100/0.25	0.09	1.80
TPUA31 - 3R3M	3.3	M、N	100/0.25	0.10	1.70
TPUA31 - 4R7M	4.7	M、N	100/0.25	0.15	1.50
TPUA31 - 6R8M	6.8	M、N	100/0.25	0.25	1.20
TPUA31 - 8R2M	8.2	M、N	100/0.25	0.30	1.00
TPUA31 - 100M	10	M、N	100/0.25	0.40	0.90
TPUA31 - 120M	12	K、M、N	100/0.25	0.55	0.80
TPUA31 - 150M	15	K、M、N	100/0.25	0.63	0.60
TPUA31 - 220M	22	K、M、N	100/0.25	0.75	0.50
TPUA31 - 270M	27	K、M、N	100/0.25	0.90	0.40

Note:

- **Operating temperature range:-30℃ to +100℃ (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA32

Electrical Characteristics (TPUA32)

Part No	Inductance L (μH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA32 - 1R0M	1.0	M、N	100/0.25	0.05	4000
TPUA32 - 1R4M	1.4	M、N	100/0.25	0.06	3000
TPUA32 - 1R5M	1.5	M、N	100/0.25	0.06	2600
TPUA32 - 1R8M	1.8	M、N	100/0.25	0.07	2500
TPUA32 - 2R2M	2.2	M、N	100/0.25	0.08	2000
TPUA32 - 2R7M	2.7	M、N	100/0.25	0.09	1900
TPUA32 - 3R3M	3.3	M、N	100/0.25	0.11	1800
TPUA32 - 3R9M	3.9	M、N	100/0.25	0.13	1700
TPUA32 - 4R7M	4.7	M、N	100/0.25	0.14	1500
TPUA32 - 5R6M	5.6	M、N	100/0.25	0.18	1400
TPUA32 - 6R8M	6.8	M、N	100/0.25	0.23	1200
TPUA32 - 8R2M	8.2	M、N	100/0.25	0.27	1100
TPUA32 - 100M	10	M、N	100/0.25	0.30	1100
TPUA32 - 120M	12	K、M、N	100/0.25	0.35	1000
TPUA32 - 150M	15	K、M、N	100/0.25	0.50	1000
TPUA32 - 180M	18	K、M、N	100/0.25	0.55	1000
TPUA32 - 220M	22	K、M、N	100/0.25	0.65	900
TPUA32 - 270M	27	K、M、N	100/0.25	0.75	850
TPUA32 - 330M	33	K、M、N	100/0.25	0.80	800
TPUA32 - 390M	39	K、M、N	100/0.25	1.20	700
TPUA32 - 470M	47	K、M、N	100/0.25	1.40	600
TPUA32 - 560M	56	K、M、N	100/0.25	1.50	500
TPUA32 - 680M	68	K、M、N	100/0.25	1.60	450
TPUA32 - 820M	82	K、M、N	100/0.25	3.00	400
TPUA32 - 101M	100	K、M、N	100/0.25	3.60	350
TPUA32 - 221M	220	K、M、N	1.0/0.25	6.50	300
TPUA32 - 331M	330	K、M、N	1.0/0.25	12.50	180
TPUA32 - 471M	470	K、M、N	1.0/0.25	14.00	90
TPUA32 - 561M	560	K、M、N	1.0/0.25	18.00	50

Note:

- **Operating temperature range:-30℃ to +100℃ (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA43

Electrical Characteristics (TPUA43)

Part No	Inductance L (µH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA43 - 1R0M	1.0	M、N	100/0.05	0.033	4500
TPUA43 - 1R2M	1.2	M、N	100/0.05	0.035	4000
TPUA43 - 1R4M	1.4	M、N	100/0.05	0.038	3800
TPUA43 - 1R8M	1.8	M、N	100/0.05	0.042	3200
TPUA43 - 2R2M	2.2	M、N	100/0.05	0.047	2600
TPUA43 - 2R7M	2.7	M、N	100/0.05	0.052	2430
TPUA43 - 3R3M	3.3	M、N	100/0.05	0.058	2150
TPUA43 - 3R9M	3.9	M、N	100/0.05	0.076	1980
TPUA43 - 4R2M	4.2	M、N	100/0.05	0.080	1800
TPUA43 - 4R7M	4.7	M、N	100/0.05	0.094	1700
TPUA43 - 5R6M	5.6	M、N	100/0.05	0.101	1600
TPUA43 - 5R8M	5.8	M、N	100/0.05	0.100	1500
TPUA43 - 6R8M	6.8	M、N	100/0.05	0.120	950
TPUA43 - 8R2M	8.2	M、N	100/0.05	0.132	1260
TPUA43 - 100M	10	M、N	100/0.05	0.182	1150
TPUA43 - 120M	12	K、M、N	100/0.05	0.210	1050
TPUA43 - 150M	15	K、M、N	100/0.05	0.235	8500
TPUA43 - 180M	18	K、M、N	100/0.05	0.338	840
TPUA43 - 220M	22	K、M、N	100/0.05	0.378	760
TPUA43 - 270M	27	K、M、N	100/0.05	0.522	710
TPUA43 - 330M	33	K、M、N	100/0.05	0.540	640
TPUA43 - 390M	39	K、M、N	100/0.05	0.75	590
TPUA43 - 470M	47	K、M、N	100/0.05	0.844	540
TPUA43 - 560M	56	K、M、N	100/0.05	0.900	400
TPUA43 - 680M	68	K、M、N	100/0.05	0.930	400
TPUA43 - 101M	100	K、M、N	1.0/0.05	1.350	4000
TPUA43 - 151M	150	K、M、N	1.0/0.05	1.800	200
TPUA43 - 221M	220	K、M、N	1.0/0.05	2.600	200
TPUA43 - 331M	330	K、M、N	1.0/0.05	3.500	100
TPUA43 - 471M	470	K、M、N	1.0/0.05	4.200	80
TPUA43 - 561M	560	K、M、N	1.0/0.05	6.000	50
TPUA43 - 681M	680	K、M、N	1.0/0.05	7.000	50
TPUA43 - 102M	1000	K、M、N	1.0/0.05	12.500	50

Note:

- **Operating temperature range:-30°C to +100°C (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA54

Electrical Characteristics (TPUA54)

Part No	Inductance L (µH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA54 - 1R0M	1.0	M、N	100/0.25	0.018	6000
TPUA54 - 1R8M	1.8	M、N	100/0.25	0.025	5800
TPUA54 - 2R2M	2.2	M、N	100/0.25	0.026	5500
TPUA54 - 2R5M	2.5	M、N	100/0.25	0.028	5300
TPUA54 - 2R7M	2.7	M、N	100/0.25	0.028	5100
TPUA54 - 3R3M	3.3	M、N	100/0.25	0.030	5000
TPUA54 - 3R9M	3.9	M、N	100/0.25	0.032	4500
TPUA54 - 4R7M	4.7	M、N	100/0.25	0.035	4000
TPUA54 - 5R6M	5.6	M、N	100/0.25	0.040	3800
TPUA54 - 6R8M	6.8	M、N	100/0.25	0.045	3500
TPUA54 - 8R2M	8.2	M、N	100/0.25	0.050	3000
TPUA54 - 100M	10	M、N	100/0.25	0.100	2800
TPUA54 - 120M	12	K、M、N	100/0.25	0.120	2500
TPUA54 - 150M	15	K、M、N	100/0.25	0.140	2400
TPUA54 - 180M	18	K、M、N	100/0.25	0.150	2300
TPUA54 - 220M	22	K、M、N	100/0.25	0.180	2200
TPUA54 - 270M	27	K、M、N	100/0.25	0.200	2000
TPUA54 - 330M	33	K、M、N	100/0.25	0.230	1500
TPUA54 - 390M	39	K、M、N	100/0.25	0.320	1400
TPUA54 - 470M	47	K、M、N	100/0.25	0.370	1300
TPUA54 - 560M	56	K、M、N	100/0.25	0.420	1300
TPUA54 - 680M	68	K、M、N	100/0.25	0.460	1000
TPUA54 - 820M	82	K、M、N	100/0.25	0.600	950
TPUA54 - 101M	100	K、M、N	1.0/0.25	0.700	900
TPUA54 - 121M	120	K、M、N	1.0/0.25	0.930	800
TPUA54 - 151M	150	K、M、N	1.0/0.25	1.100	650
TPUA54 - 181M	180	K、M、N	1.0/0.25	1.380	600
TPUA54 - 221M	220	K、M、N	1.0/0.25	1.570	500
TPUA54 - 331M	330	K、M、N	1.0/0.25	1.900	450
TPUA54 - 561M	560	K、M、N	1.0/0.25	3.300	350
TPUA54 - 681M	680	K、M、N	1.0/0.25	3.839	300
TPUA54 - 102M	1000	K、M、N	1.0/0.25	5.000	200
TPUA54 - 202M	2000	K、M、N	1.0/0.25	9.500	100

Note:

- **Operating temperature range:-30°C to +100°C (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA73

Electrical Characteristics (TPUA73)

Part No	Inductance L (µH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA73 - 1R0M	1.0	M、N	100/0.25	0.015	7000
TPUA73 - 1R8M	1.8	M、N	100/0.25	0.020	6500
TPUA73 - 2R7M	2.7	M、N	100/0.25	0.025	6000
TPUA73 - 3R3M	3.3	M、N	100/0.25	0.030	5000
TPUA73 - 3R9M	3.9	M、N	100/0.25	0.032	4500
TPUA73 - 4R7M	4.7	M、N	100/0.25	0.040	4000
TPUA73 - 5R6M	5.6	M、N	100/0.25	0.055	3500
TPUA73 - 6R8M	6.8	M、N	100/0.25	0.065	3300
TPUA73 - 8R2M	8.2	M、N	100/0.25	0.075	3200
TPUA73 - 100M	10	M、N	100/0.25	0.080	3000
TPUA73 - 120M	12	K、M、N	100/0.25	0.090	2900
TPUA73 - 150M	15	K、M、N	100/0.25	0.095	2800
TPUA73 - 180M	18	K、M、N	100/0.25	0.100	2700
TPUA73 - 220M	22	K、M、N	100/0.25	0.110	2500
TPUA73 - 270M	27	K、M、N	100/0.25	0.125	2000
TPUA73 - 330M	33	K、M、N	100/0.25	0.170	1900
TPUA73 - 390M	39	K、M、N	100/0.25	0.180	1800
TPUA73 - 470M	47	K、M、N	100/0.25	0.300	1700
TPUA73 - 560M	56	K、M、N	100/0.25	0.350	1600
TPUA73 - 680M	68	K、M、N	100/0.25	0.400	1200
TPUA73 - 820M	82	K、M、N	100/0.25	0.450	1100
TPUA73 - 101M	100	K、M、N	1.0/0.25	0.500	1000
TPUA73 - 121M	120	K、M、N	1.0/0.25	0.600	900
TPUA73 - 151M	150	K、M、N	1.0/0.25	0.800	800
TPUA73 - 181M	180	K、M、N	1.0/0.25	1.000	650
TPUA73 - 221M	220	K、M、N	1.0/0.25	1.500	600
TPUA73 - 271M	270	K、M、N	1.0/0.25	1.800	500
TPUA73 - 331M	330	K、M、N	1.0/0.25	2.500	450
TPUA73 - 471M	470	K、M、N	1.0/0.25	3.000	400
TPUA73 - 561M	560	K、M、N	1.0/0.25	3.500	350
TPUA73 - 681M	680	K、M、N	1.0/0.25	4.000	300
TPUA73 - 821M	820	K、M、N	1.0/0.25	5.000	280

Note:

- **Operating temperature range:-30°C to +100°C (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA75

Electrical Characteristics (TPUA75)

Part No	Inductance L (μH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA75 - 1R0M	1.0	M、N	100/0.25	0.010	8000
TPUA75 - 1R2M	1.2	M、N	100/0.25	0.010	7500
TPUA75 - 1R8M	1.8	M、N	100/0.25	0.012	7200
TPUA75 - 2R2M	2.2	M、N	100/0.25	0.013	7000
TPUA75 - 2R7M	2.7	M、N	100/0.25	0.015	6500
TPUA75 - 3R3M	3.3	M、N	100/0.25	0.018	6000
TPUA75 - 3R9M	3.9	M、N	100/0.25	0.021	5500
TPUA75 - 4R7M	4.7	M、N	100/0.25	0.026	5000
TPUA75 - 5R6M	5.6	M、N	100/0.25	0.050	4500
TPUA75 - 6R8M	6.8	M、N	100/0.25	0.055	4000
TPUA75 - 8R2M	8.2	M、N	100/0.25	0.060	3800
TPUA75 - 100M	10	M、N	100/0.25	0.070	3500
TPUA75 - 120M	12	K、M、N	100/0.25	0.080	3200
TPUA75 - 150M	15	K、M、N	100/0.25	0.090	3000
TPUA75 - 180M	18	K、M、N	100/0.25	0.100	2800
TPUA75 - 220M	22	K、M、N	100/0.25	0.110	2700
TPUA75 - 270M	27	K、M、N	100/0.25	0.120	2500
TPUA75 - 330M	33	K、M、N	100/0.25	0.130	2400
TPUA75 - 390M	39	K、M、N	100/0.25	0.160	2300
TPUA75 - 470M	47	K、M、N	100/0.25	0.180	2200
TPUA75 - 560M	56	K、M、N	100/0.25	0.240	2000
TPUA75 - 680M	68	K、M、N	100/0.25	0.280	1800
TPUA75 - 820M	82	K、M、N	100/0.25	0.370	1700
TPUA75 - 101M	100	K、M、N	1.0/0.25	0.430	1600
TPUA75 - 121M	120	K、M、N	1.0/0.25	0.470	1500
TPUA75 - 151M	150	K、M、N	1.0/0.25	0.640	1000
TPUA75 - 181M	180	K、M、N	1.0/0.25	0.710	900
TPUA75 - 221M	220	K、M、N	1.0/0.25	0.960	800
TPUA75 - 271M	270	K、M、N	1.0/0.25	1.110	700
TPUA75 - 331M	330	K、M、N	1.0/0.25	1.260	600
TPUA75 - 391M	390	K、M、N	1.0/0.25	1.770	500
TPUA75 - 471M	470	K、M、N	1.0/0.25	1.960	450
TPUA75 - 561M	560	K、M、N	1.0/0.25	2.100	400
TPUA75 - 681M	680	K、M、N	1.0/0.25	2.500	350
TPUA75 - 821M	820	K、M、N	1.0/0.25	3.000	300

Note:

- **Operating temperature range:-30°C to +100°C (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA104

Electrical Characteristics (TPUA104)

Part No	Inductance L (μH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA104 - 1R0M	1.0	M、N	100/0.25	0.015	9000
TPUA104 - 1R8M	1.8	M、N	100/0.25	0.020	8500
TPUA104 - 2R7M	2.7	M、N	100/0.25	0.025	8000
TPUA104 - 3R3M	3.3	M、N	100/0.25	0.030	7500
TPUA104 - 3R9M	3.9	M、N	100/0.25	0.040	7000
TPUA104 - 4R7M	4.7	M、N	100/0.25	0.045	6000
TPUA104 - 5R6M	5.6	M、N	100/0.25	0.050	5000
TPUA104 - 6R8M	6.8	M、N	100/0.25	0.053	4500
TPUA104 - 8R2M	8.2	M、N	100/0.25	0.058	4000
TPUA104 - 100M	10	M、N	100/0.25	0.060	3800
TPUA104 - 120M	12	K、M、N	100/0.25	0.070	3500
TPUA104 - 150M	15	K、M、N	100/0.25	0.080	3000
TPUA104 - 180M	18	K、M、N	100/0.25	0.090	2800
TPUA104 - 220M	22	K、M、N	100/0.25	0.100	2500
TPUA104 - 270M	27	K、M、N	100/0.25	0.110	2000
TPUA104 - 330M	33	K、M、N	100/0.25	0.120	1900
TPUA104 - 390M	39	K、M、N	100/0.25	0.140	1800
TPUA104 - 470M	47	K、M、N	100/0.25	0.170	1700
TPUA104 - 560M	56	K、M、N	100/0.25	0.190	1600
TPUA104 - 680M	68	K、M、N	100/0.25	0.220	1500
TPUA104 - 820M	82	K、M、N	100/0.25	0.250	1200
TPUA104 - 101M	100	K、M、N	1.0/0.25	0.350	1000
TPUA104 - 121M	120	K、M、N	1.0/0.25	0.400	900
TPUA104 - 151M	150	K、M、N	1.0/0.25	0.470	770
TPUA104 - 181M	180	K、M、N	1.0/0.25	0.530	690
TPUA104 - 221M	220	K、M、N	1.0/0.25	0.620	610
TPUA104 - 271M	270	K、M、N	1.0/0.25	0.780	540
TPUA104 - 321M	320	K、M、N	1.0/0.25	0.850	500
TPUA104 - 331M	330	K、M、N	1.0/0.25	0.900	460
TPUA104 - 391M	390	K、M、N	1.0/0.25	0.980	380
TPUA104 - 471M	470	K、M、N	1.0/0.25	1.500	320
TPUA104 - 561M	560	K、M、N	1.0/0.25	2.000	280
TPUA104 - 681M	680	K、M、N	1.0/0.25	2.800	250
TPUA104 - 821M	820	K、M、N	1.0/0.25	3.200	150
TPUA104 - 102M	1000	K、M、N	1.0/0.25	3.500	100

Note:

- **Operating temperature range:-30°C to +100°C (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

TPUA105

Electrical Characteristics (TPUA105)

Part No	Inductance L (μH)	Tolerance	Test Freq (KHz/V)	DCR (Ω) Max.	Heat Rating Current DC Amps. Idc (A)
TPUA105 - 1R0M	1.0	M、N	100/0.25	0.015	9800
TPUA105 - 1R8M	1.8	M、N	100/0.25	0.022	9500
TPUA105 - 2R7M	2.7	M、N	100/0.25	0.028	9000
TPUA105 - 3R3M	3.3	M、N	100/0.25	0.032	8500
TPUA105 - 3R9M	3.9	M、N	100/0.25	0.034	8000
TPUA105 - 4R7M	4.7	M、N	100/0.25	0.038	7500
TPUA105 - 5R6M	5.6	M、N	100/0.25	0.039	7000
TPUA105 - 6R8M	6.8	M、N	100/0.25	0.040	6000
TPUA105 - 8R2M	8.2	M、N	100/0.25	0.058	5500
TPUA105 - 100M	10	M、N	100/0.25	0.060	5000
TPUA105 - 120M	12	K、M、N	100/0.25	0.070	4800
TPUA105 - 150M	15	K、M、N	100/0.25	0.080	4500
TPUA105 - 180M	18	K、M、N	100/0.25	0.090	4000
TPUA105 - 220M	22	K、M、N	100/0.25	0.100	3500
TPUA105 - 270M	27	K、M、N	100/0.25	0.110	3200
TPUA105 - 330M	33	K、M、N	100/0.25	0.120	3000
TPUA105 - 390M	39	K、M、N	100/0.25	0.140	2800
TPUA105 - 470M	47	K、M、N	100/0.25	0.170	2700
TPUA105 - 560M	56	K、M、N	100/0.25	0.190	2500
TPUA105 - 680M	68	K、M、N	100/0.25	0.220	2000
TPUA105 - 820M	82	K、M、N	100/0.25	0.250	1800
TPUA105 - 101M	100	K、M、N	1.0/0.25	0.350	1500
TPUA105 - 121M	120	K、M、N	1.0/0.25	0.400	1400
TPUA105 - 151M	150	K、M、N	1.0/0.25	0.450	1200
TPUA105 - 221M	220	K、M、N	1.0/0.25	0.520	1000
TPUA105 - 271M	270	K、M、N	1.0/0.25	0.600	900
TPUA105 - 331M	330	K、M、N	1.0/0.25	0.800	800
TPUA105 - 391M	390	K、M、N	1.0/0.25	0.850	750
TPUA105 - 471M	470	K、M、N	1.0/0.25	0.950	700
TPUA105 - 561M	560	K、M、N	1.0/0.25	1.100	650
TPUA105 - 681M	680	K、M、N	1.0/0.25	2.100	600
TPUA105 - 821M	820	K、M、N	1.0/0.25	2.500	500
TPUA105 - 102M	1000	K、M、N	1.0/0.25	3.000	400

Note:

- **Operating temperature range:-30°C to +100°C (Including self-generated heat).**
- **Inductance measured using the HP4284A; Chroma 3302+1320.**
- **DCR measured using the 16502 milli-ohm meter.**
- **Inductance drop no more than 10% of initial value at rated current, temperature rises Δt < 40°C.**
- **Storage Temperature Range:-40°C to +85°C.**

Order Codes

Order Codes (TPUA)

TPUA32	-	1R0	M

Part Number		
TPUA31	TPUA54	TPUA104
TPUA32	TPUA73	TPUA105
TPUA43	TPUA75	

Inductance	
1R0	1.00μH
100	10.00μH
101	100.00μH
102	1000.00μH

Tolerance	
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

General Information

How to Quickly Search Inductor for all of the Characteristics?

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Searching and comparing data sheets of inductor manufacturers can be time consuming. Token's Parameter Sorting Search Mode allows selection of inductors based on different parameters.
By entering just the inductance value,
By sorting parameter to narrow down searching range,
Or by enter keyword / part number / size dimensions L*W*H to partial or exact searching.

Leading-Edge Technology

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

Find Inductor Solutions Faster

Find Your Inductor - wt.moc.nekot@qfr
Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

Find Your Solution - wt.moc.nekot@qfr
Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.
Ask Us Today

(TPUD) Low-Profile Wirewound Power Inductors

Product Introduction

SMD unshielded wire-wound power inductors compact low profile to 0.8 mm.

Features :

- Open Magnetic circuit construction.
- Low Profile.

Applications :

- LCD Driver, Cellular Phone.
- Small DC/DC Converter.
- Transformers.

Token (TPUD) wire-wound inductor is designed for the smallest possible size and high performance with high energy storage and very low resistance. Those devices are ideal power inductors for notebook, DC-DC converter, digital camera and scanner, LCD Driver, and CD-Rom.

Utilize open Magnetic circuit construction and advance winding technology in manufacturing low profile (TPUD) series. The maximum height of TPUD4006/4008 is only 0.8/1.0 mm, TPUD4011/4013 1.2/1.45 mm, and TPUD5011/5013 1.2/1.5 mm.

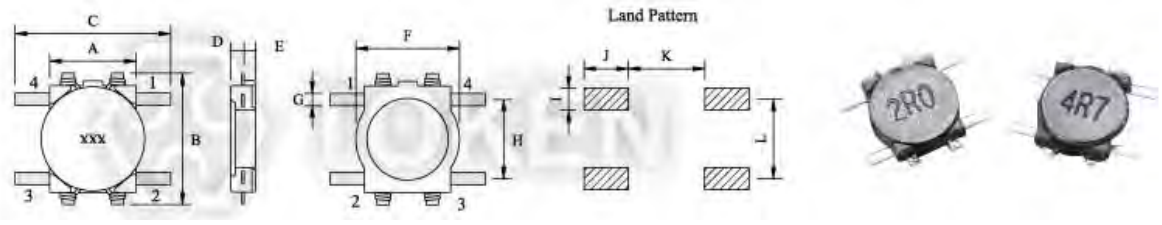
The performance of the power components directly affects the overall efficiency of the supply in DC-DC converters and power supplies, so it is of vital importance. The TPUD5013 features low DC resistance, down to 0.081 ohm, and high rated current; up to 1.25 A is supported. Depending on version, the inductance values of these surface mount inductors range from 2.2 uH to 100 uH.

Token power unshielded inductors (TPUD) series conform to the RoHS directive and Lead-free. Custom parts are available for tighter tolerances on request. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "SMD Power Inductors" for more information.

Dimensions

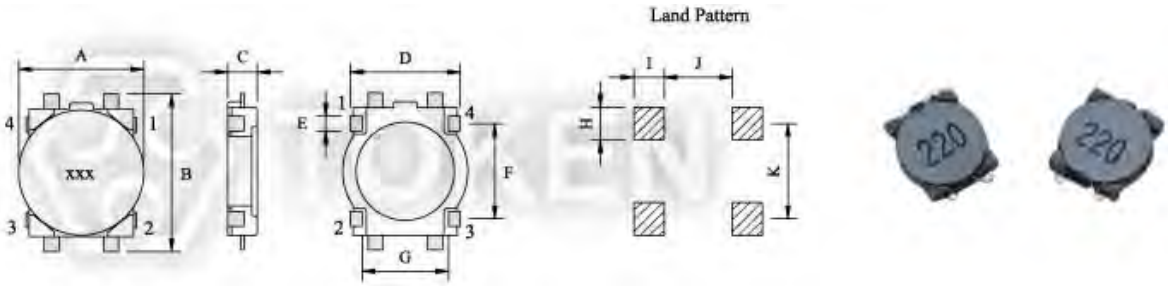
Dimensions & Configurations (Unit: mm) (TPUD4006/4008)

Type	A	B Max.	C Max.	D Max.	E	F	G	H	I	J	K	L
TPUD4006	3.5	5.8	6.3	0.8	0.4	4.1	0.5	3.2	0.9	1.5	4.0	3.2
TPUD4008	3.5	5.8	6.3	1.0	0.4	4.1	0.5	3.2	0.9	1.5	4.0	3.2



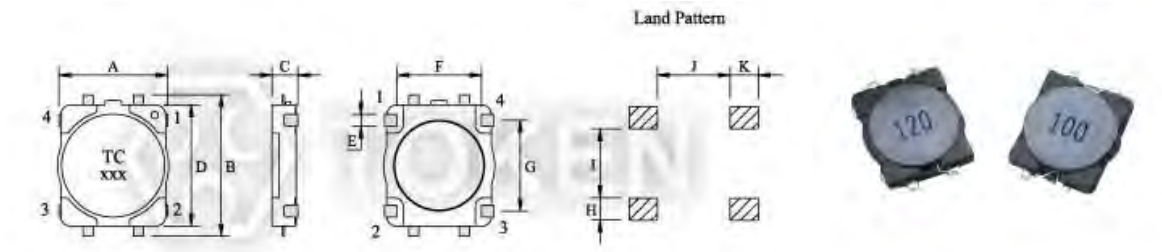
Dimensions & Configurations (Unit: mm) (TPUD4011/4013)

Type	A Max.	B Max.	C Max.	D	E	F	G	H	I	J	K
TPUD4011	4.4	5.8	1.2	3.7	0.5	3.2	2.9	0.8	1.4	2.5	3.2
TPSD4011	4.9	4.9	1.2	3.7	0.5	3.2	2.9	0.8	1.4	2.5	3.2
TPUD4013	4.4	5.8	1.45	3.7	0.5	3.2	2.9	0.8	1.4	2.5	3.2



Dimensions & Configurations (Unit: mm) (TPUD5011/5013)

Type	A Max.	B Max.	C Max.	D	E	F	G	H	I	J	K
TPUD5011	5.8	7.4	1.2	6.0	0.6	4.2	4.5	1.1	3.4	3.6	1.4
TPUD5013	5.8	7.4	1.5	6.0	0.6	4.2	4.5	1.1	3.4	3.6	1.4



TPUD4006

Electrical Characteristics (TPUD4006)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPUD4006 - 2R2M	2.20	100	0.116	0.95
TPUD4006 - 3R3M	3.30	100	0.174	0.77
TPUD4006 - 4R7M	4.70	100	0.216	0.75
TPUD4006 - 6R8M	6.80	100	0.296	0.62
TPUD4006 - 100M	10.00	100	0.457	0.50
TPUD4006 - 150M	15.00	100	0.676	0.40
TPUD4006 - 220M	22.00	100	1.066	0.30
TPUD4006 - 330M	33.00	100	1.647	0.24
TPUD4006 - 470M	47.00	100	2.843	0.18

Note:
- Test Freq.: 100KHz / 0.1V.
- Operating Temp.: -40℃ ~ +85°C.
- Inductance drop=10% typ. at IDC.

TPUD4008

Electrical Characteristics (TPUD4008)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPUD4008-3R3M	3.30	100	0.160	0.85
TPUD4008-4R7M	4.70	100	0.194	0.80
TPUD4008-6R8M	6.80	100	0.276	0.65
TPUD4008-100M	10.00	100	0.335	0.57
TPUD4008-150M	15.00	100	0.508	0.45
TPUD4008-220M	22.00	100	0.766	0.37
TPUD4008-330M	33.00	100	1.162	0.28
TPUD4008-470M	47.00	100	1.658	0.22
TPUD4008-680M	68.00	100	2.534	0.18
TPUD4008-101M	100.00	100	3.304	0.17

Note:
- Test Freq.: 100KHz / 0.1V.
- Operating Temp.: -40℃ ~ +85°C.
- Inductance drop=10% typ. at IDC.

TPUD4011

Electrical Characteristics (TPUD4011) Unshielded

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPUD4011 - 2R2M	2.20	100	0.116	0.95
TPUD4011 - 3R3M	3.30	100	0.174	0.77
TPUD4011 - 4R7M	4.70	100	0.216	0.75
TPUD4011 - 6R8M	6.80	100	0.296	0.62
TPUD4011 - 100M	10.00	100	0.457	0.50
TPUD4011 - 150M	15.00	100	0.676	0.40
TPUD4011 - 220M	22.00	100	1.066	0.30
TPUD4011 - 330M	33.00	100	1.647	0.24
TPUD4011 - 470M	47.00	100	2.843	0.18

Note:
- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85°C.**
- **Inductance drop=10% typ. at IDC.**

Electrical Characteristics (TPSD4011) Shielded

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPSD4011 - 3R3N	3.30	100	0.12	1.0
TPSD4011 - 4R7N	4.70	100	0.18	0.8
TPSD4011 - 6R8M	6.80	100	0.22	0.7
TPSD4011 - 100M	10.00	100	0.31	0.6
TPSD4011 - 150M	15.00	100	0.48	0.5
TPSD4011 - 220M	22.00	100	0.71	0.4
TPSD4011 - 330M	33.00	100	1.1	0.3

Note:
- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85°C.**
- **Inductance drop=10% typ. at IDC.**

TPUD4013

Electrical Characteristics (TPUD4013)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPUD4013 - 3R3M	3.30	100	0.160	0.85
TPUD4013 - 4R7M	4.70	100	0.194	0.80
TPUD4013 - 6R8M	6.80	100	0.276	0.65
TPUD4013 - 100M	10.00	100	0.335	0.57
TPUD4013 - 150M	15.00	100	0.508	0.45
TPUD4013 - 220M	22.00	100	0.766	0.37
TPUD4013 - 330M	33.00	100	1.162	0.28
TPUD4013 - 470M	47.00	100	1.658	0.22
TPUD4013 - 680M	33.00	100	2.534	0.18
TPUD4013 - 101M	47.00	100	3.304	0.17

Note:
- Test Freq.: 100KHz / 0.1V.
- Operating Temp.: -40℃ ~ +85℃.
- Inductance drop=10% typ. at IDC.

TPUD5011

Electrical Characteristics (TPUD5011)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPUD5011 - 3R3M	3.30	100	0.109	0.94
TPUD5011 - 4R7M	4.70	100	0.156	0.80
TPUD5011 - 6R8M	6.80	100	0.216	0.65
TPUD5011 - 100M	10.00	100	0.275	0.53
TPUD5011 - 150M	15.00	100	0.438	0.40
TPUD5011 - 220M	22.00	100	0.663	0.36
TPUD5011 - 330M	33.00	100	0.975	0.32
TPUD5011 - 470M	47.00	100	1.380	0.26
TPUD5011 - 680M	68.00	100	1.700	0.23
TPUD5011 - 101M	100.00	100	2.800	0.20

Note:
- Test Freq.: 100KHz / 0.1V.
- Operating Temp.: -40℃ ~ +85℃.
- Inductance drop=10% typ. at IDC.

TPUD5013

Electrical Characteristics (TPUD5013)

Part Number	Inductance (µH)	Test Freq. (KHz)	DCR (Ω) Max.	IDC (A) Max.
TPUD5013 - 3R3M	3.30	100	0.081	1.25
TPUD5013 - 4R7M	4.70	100	0.106	1.20
TPUD5013 - 6R8M	6.80	100	0.144	0.90
TPUD5013 - 100M	10.00	100	0.187	0.85
TPUD5013 - 150M	15.00	100	0.300	0.57
TPUD5013 - 220M	22.00	100	0.431	0.54
TPUD5013 - 330M	33.00	100	0.637	0.38
TPUD5013 - 470M	47.00	100	0.875	0.35

Note:
- **Test Freq.: 100KHz / 0.1V.**
- **Operating Temp.: -40℃ ~ +85℃.**
- **Inductance drop=10% typ. at IDC.**

Order Codes

Order Codes (TPUD4006, TPUD4008, TPUD5011, TPUD5013)

TPUD4006	-	4R7	M

Part Number
TPUD4006
TPUD4008
TPUD5011
TPUD5013

Inductance	
4R7	4.70µH
100	10.00µH
101	100.00µH

Tolerance	
M	20%
N	30%

Order Codes (TPUD4011, TPSD4011, TPUD4013)

TPUD4011	-	100	M

Part Number
TPUD4011
TPSD4011
TPUD4013

Inductance	
3R3	3.30µH
100	10.00µH
101	100.00µH

Tolerance	
K	10%
L	15%
M	20%
N	30%

Note: TPSD4011 Closed Magnetic Field Construction。

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- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

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