Version:
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(TPSTP)
High Current
Power Inductors

Token Electronics Industry Co., Ltd.

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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.

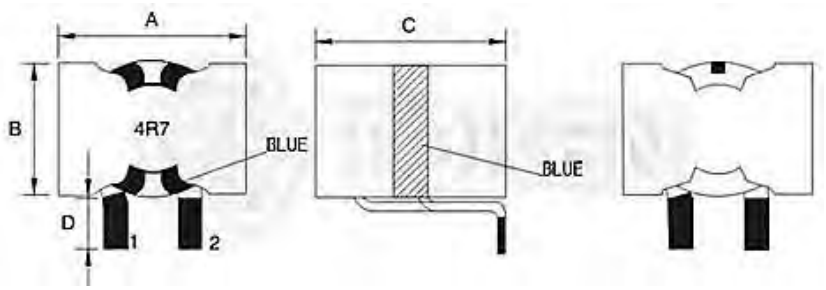
The new ranges deliver a good size/performance ratio with compact packaging size is designed to save space, measuring 21mm x 14.5mm (TPSTP). A wide range of inductances is also available: 0.3µH to 33µH. The parts come with high rated currents, up to 35A, and feature magnetic shielding as standard. Operating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

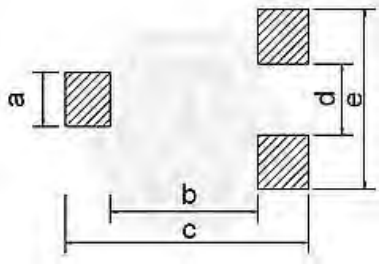
Dimensions

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 - rfq@token.com.tw
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 - rfq@token.com.tw
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