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(TPSTX)
SMD Compact Power
Toroidal Inductors

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▶ 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.

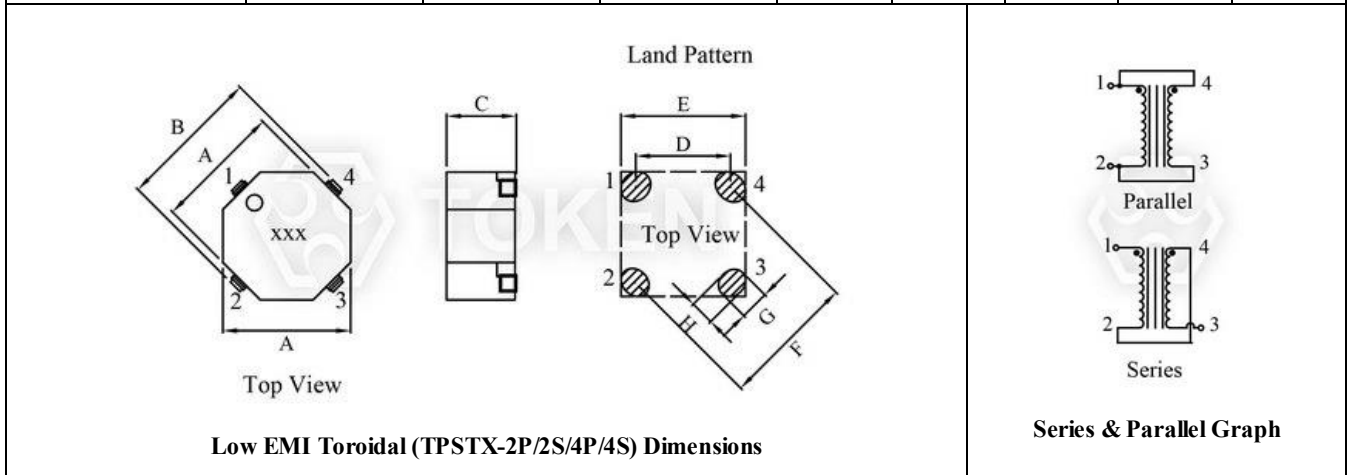
Custom parts are available on request. Application of specific designs also available including different inductance and frequency specifications adjusted to requirements. Please contact our sales or link to Token official website "[SMD Power Inductors](http://www.token.com.tw)" for more information.



► **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



● 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°C ~ +85°C.



▶ 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°C ~ +85°C.



▶ 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
...

► 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

