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.

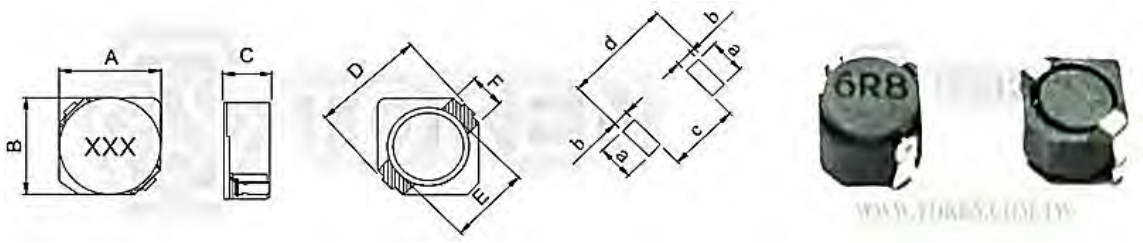
The series is lead-free and RoHS compliant. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements.

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

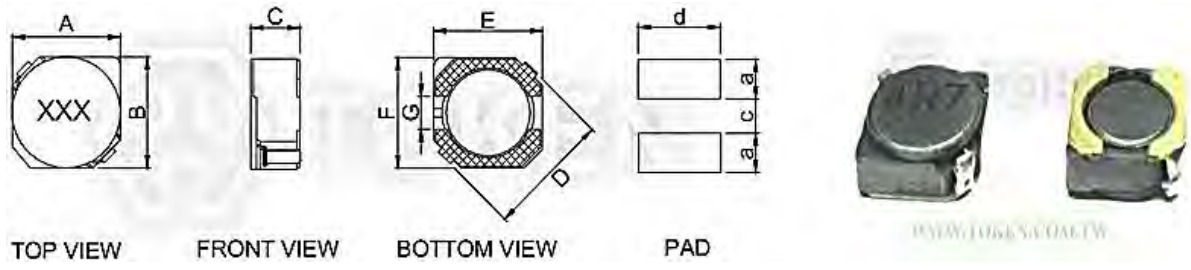
Dimensions & Configurations (Unit: mm) (TPSRH-2D11~3D14)

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	



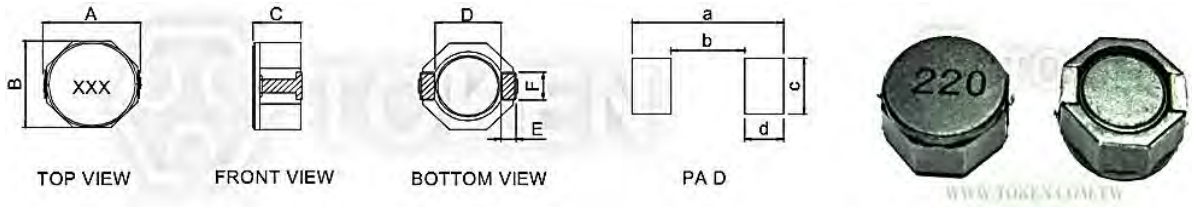
Dimensions & Configurations (Unit: mm) (TPSRH-3D16~6D38)

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