

High Current Inductors Shielded Inductors Wire-Wound Inductors

▶ Preview

Token Introduces Wire Wound High-Current Compact Power Inductor. TPSRH103R, TPSRH104R, and TPSRH105R provide wide inductance range from 1.30 μ H to 1000.00 μ H, low direct current resistance (DCR) down to 0.0081 Ω , 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 (TPSRH104R) family inductors covering complete footprint with profile from 1.8 mm to 8.0 mm, inductance from 1.00 μ to 1000.00 μ , low DCR, and Rated Current up to 10.0A.

Token (TPSRH104R) with wire wound and magnetically shielded construction offers a variety of characteristics and high performance. 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 for more information.

Selection Quick View :

- TPSRH103R: (10.3x10.4x3.0 mm); 10.00 μ H ~ 150.00 μ H; DCR 0.0581 Ω ~ 0.8763 Ω ; IDC 2.70A ~ 0.70A.
- TPSRH104R: (10.3x10.4x4.0 mm); 1.30 μ H ~ 330.00 μ H; DCR 0.0081 Ω ~ 1.090 Ω ; IDC 10.0A ~ 0.70A.
- TPSRH105R: (10.3x10.4x5.0 mm); 10.00 μ H ~ 1000.00 μ H; DCR 0.0258 Ω ~ 1.9464 Ω ; IDC 3.45A ~ 0.35A.

Features :

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

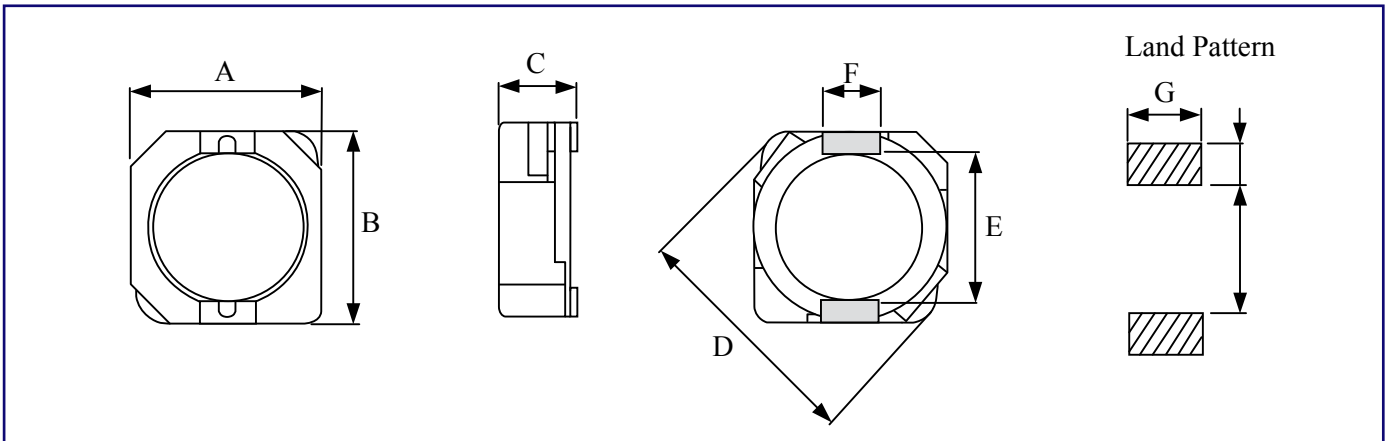
Applications :

- VTR, OA equipment, Notebook.
- Portable communication equipments.
- DC-DC converters, LCD television set.



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Dimensions & Configurations (Unit: mm) (TPSRH103R, TPSRH104R, TPSRH105R)



Type	A(max)	B(max)	C(max)	D(max)	E ± 0.3	F ± 0.1	G	H	I
TPSRH103R	10.3	10.4	3.0	13.5	7.7	3.0	3.6	1.7	7.3
TPSRH104R	10.3	10.4	4.0	13.5	7.7	3.0	3.6	1.7	7.3
TPSRH105R	10.3	10.4	5.0	13.5	7.7	3.0	3.6	1.7	7.3

Note : Design as Customer's Requested Specifications.

Electrical Characteristics (TPSRH103R)

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TPSRH103R - 100M	10.00	100	0.0581	2.70
TPSRH103R - 120M	12.00	100	0.0721	2.25
TPSRH103R - 150M	15.00	100	0.0865	2.22
TPSRH103R - 180M	18.00	100	0.1161	1.90
TPSRH103R - 220M	22.00	100	0.1454	1.78
TPSRH103R - 270M	27.00	100	0.1759	1.63
TPSRH103R - 330M	33.00	100	0.2134	1.46
TPSRH103R - 390M	39.00	100	0.2689	1.32
TPSRH103R - 470M	47.00	100	0.2986	1.18
TPSRH103R - 560M	56.00	100	0.3358	1.10
TPSRH103R - 680M	68.00	100	0.4513	1.04
TPSRH103R - 820M	82.00	100	0.5138	0.94
TPSRH103R - 101M	100.00	100	0.7000	0.84
TPSRH103R - 121M	120.00	100	0.7650	0.76
TPSRH103R - 151M	150.00	100	0.8763	0.70

Note: Test Freq.: 100KHz / 1V.
 Operating Temp.: -40°C ~ +85°C.
 Inductance drop=25% typ. at IDC.

▶ Electrical Characteristics (TPSRH104R)

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)	Irms (A) (max)
TPSRH104R - 1R3N	1.30	100	0.0081	10.0	6.50
TPSRH104R - 2R5N	2.50	100	0.010	7.50	6.10
TPSRH104R - 3R8N	3.80	100	0.013	6.00	5.50
TPSRH104R - 5R2N	5.20	100	0.022	5.50	5.40
TPSRH104R - 7R0N	7.00	100	0.027	4.80	4.50
TPSRH104R - 100M	10.00	100	0.035	4.40	3.80
TPSRH104R - 150M	15.00	100	0.050	3.60	3.10
TPSRH104R - 220M	22.00	100	0.073	2.90	2.50
TPSRH104R - 330M	33.00	100	0.093	2.30	2.20
TPSRH104R - 470M	47.00	100	0.128	2.10	1.90
TPSRH104R - 680M	68.00	100	0.213	1.50	1.42
TPSRH104R - 101M	100.00	100	0.304	1.35	1.25
TPSRH104R - 151M	150.00	100	0.506	1.15	0.85
TPSRH104R - 221M	220.00	100	0.756	0.92	0.70
TPSRH104R - 331M	330.00	100	1.090	0.70	0.52

Note: Test Freq.: 100KHz / 1V.
 Operating Temp.: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$.
 Inductance drop=35% typ. at IDC.
 $\Delta T=40^{\circ}\text{C}$ rise at Irms.

Electrical Characteristics (TPSRH105R)

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TPSRH105R - 100M	10.00	100	0.0258	3.45
TPSRH105R - 120M	12.00	100	0.0320	3.40
TPSRH105R - 150M	15.00	100	0.0400	2.83
TPSRH105R - 180M	18.00	100	0.0460	2.62
TPSRH105R - 220M	22.00	100	0.0585	2.44
TPSRH105R - 270M	27.00	100	0.0654	2.24
TPSRH105R - 330M	33.00	100	0.0814	1.88
TPSRH105R - 390M	39.00	100	0.1031	1.70
TPSRH105R - 470M	47.00	100	0.1221	1.56
TPSRH105R - 560M	56.00	100	0.1448	1.39
TPSRH105R - 680M	68.00	100	0.1930	1.36
TPSRH105R - 820M	82.00	100	0.2194	1.20
TPSRH105R - 101M	100.00	100	0.2470	1.09
TPSRH105R - 121M	120.00	100	0.2984	1.00
TPSRH105R - 151M	150.00	100	0.3551	0.91
TPSRH105R - 181M	180.00	100	0.3943	0.84
TPSRH105R - 221M	220.00	100	0.4838	0.75
TPSRH105R - 271M	270.00	100	0.6325	0.68
TPSRH105R - 331M	330.00	100	0.7800	0.60
TPSRH105R - 391M	390.00	100	0.9575	0.57
TPSRH105R - 471M	470.00	100	1.2204	0.50
TPSRH105R - 561M	560.00	100	1.3524	0.47
TPSRH105R - 681M	680.00	100	1.5192	0.43
TPSRH105R - 821M	820.00	100	1.6944	0.39
TPSRH105R - 102M	1000.00	100	1.9464	0.35

Note: Test Freq.: 100KHz / 1V.
 Operating Temp.: -40°C ~ +85°C.
 Inductance drop=25% typ. at IDC.

▶ How to Order

TPSRH103R

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❶ Part Number: TPSRH103R; TPSRH104R; TPSRH105R

❷ Inductance

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

❸ Tolerance

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

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