



# Power Inductors

## Power Inductor SMT Shielded - TCRH103R/104R/105R Series / 功率电感贴片闭磁式

### ► Power Inductor SMI Shielded Features

- Magnetically shielded construction
- Compact and thin
- Wire burst resistant due to special construction.

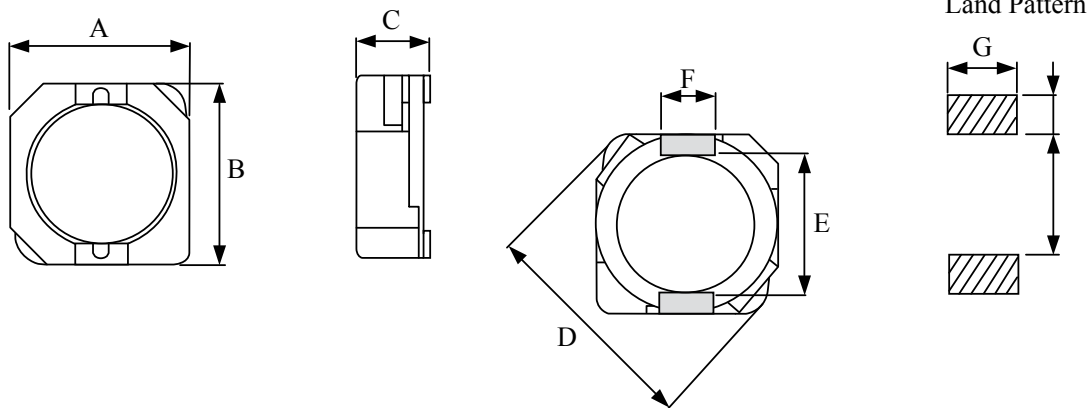
### ► Applications

DC-DC converter transformer, LCD TV, Notebook, VCR Camera.

### ► Power Inductor SMI Shielded Dimensions & Configurations (Unit In mm)

Type	A(max)	B(max)	C(max)	D(max)	E ± 0.3	F ± 0.1	G	H	I
TCRH103R	10.3	10.4	3.0	13.5	7.7	3.0	3.6	1.7	7.3
TCRH104R	10.3	10.4	4.0	13.5	7.7	3.0	3.6	1.7	7.3
TCRH105R	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 for TCRH103R Series Power Inductor SMI Shielded

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
TCRH103R - 100M	10.00	100	0.0581	2.70
TCRH103R - 120M	12.00	100	0.0721	2.25
TCRH103R - 150M	15.00	100	0.0865	2.22
TCRH103R - 180M	18.00	100	0.1161	1.90
TCRH103R - 220M	22.00	100	0.1454	1.78
TCRH103R - 270M	27.00	100	0.1759	1.63
TCRH103R - 330M	33.00	100	0.2134	1.46
TCRH103R - 390M	39.00	100	0.2689	1.32
TCRH103R - 470M	47.00	100	0.2986	1.18
TCRH103R - 560M	56.00	100	0.3358	1.10
TCRH103R - 680M	68.00	100	0.4513	1.04
TCRH103R - 820M	82.00	100	0.5138	0.94
TCRH103R - 101M	100.00	100	0.7000	0.84
TCRH103R - 121M	120.00	100	0.7650	0.76
TCRH103R - 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.





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## ► Electrical Characteristics for TCRH104R Series Power Inductor SMI Shielded

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)	Irms (A) (max)
TCRH104R - 1R3N	1.30	100	0.0081	10.0	6.50
TCRH104R - 2R5N	2.50	100	0.010	7.50	6.10
TCRH104R - 3R8N	3.80	100	0.013	6.00	5.50
TCRH104R - 5R2N	5.20	100	0.022	5.50	5.40
TCRH104R - 7R0N	7.00	100	0.027	4.80	4.50
TCRH104R - 100M	10.00	100	0.035	4.40	3.80
TCRH104R - 150M	15.00	100	0.050	3.60	3.10
TCRH104R - 220M	22.00	100	0.073	2.90	2.50
TCRH104R - 330M	33.00	100	0.093	2.30	2.20
TCRH104R - 470M	47.00	100	0.128	2.10	1.90
TCRH104R - 680M	68.00	100	0.213	1.50	1.42
TCRH104R - 101M	100.00	100	0.304	1.35	1.25
TCRH104R - 151M	150.00	100	0.506	1.15	0.85
TCRH104R - 221M	220.00	100	0.756	0.92	0.70
TCRH104R - 331M	330.00	100	1.090	0.70	0.52

Note: Test Freq.: 100KHz / 1V.

Operating Temp.: -40°C ~ +85°C.

Inductance drop=35% typ. at IDC.

ΔT=40°C rise at Irms.

## ► Electrical Characteristics for TCRH105R Series Power Inductor SMI Shielded

Part Number	Inductance (μH)	Test Freq. ( KHz )	DCR (Ω) (max)	IDC (A) (max)
TCRH105R - 100M	10.00	100	0.0258	3.45
TCRH105R - 120M	12.00	100	0.0320	3.40
TCRH105R - 150M	15.00	100	0.0400	2.83
TCRH105R - 180M	18.00	100	0.0460	2.62
TCRH105R - 220M	22.00	100	0.0585	2.44
TCRH105R - 270M	27.00	100	0.0654	2.24
TCRH105R - 330M	33.00	100	0.0814	1.88
TCRH105R - 390M	39.00	100	0.1031	1.70
TCRH105R - 470M	47.00	100	0.1221	1.56
TCRH105R - 560M	56.00	100	0.1448	1.39
TCRH105R - 680M	68.00	100	0.1930	1.36
TCRH105R - 820M	82.00	100	0.2194	1.20
TCRH105R - 101M	100.00	100	0.2470	1.09
TCRH105R - 121M	120.00	100	0.2984	1.00
TCRH105R - 151M	150.00	100	0.3551	0.91
TCRH105R - 181M	180.00	100	0.3943	0.84
TCRH105R - 221M	220.00	100	0.4838	0.75
TCRH105R - 271M	270.00	100	0.6325	0.68
TCRH105R - 331M	330.00	100	0.7800	0.60

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Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. ( KHz )	DCR ( $\Omega$ ) (max)	IDC (A) (max)
TCRH105R - 391M	390.00	100	0.9575	0.57
TCRH105R - 471M	470.00	100	1.2204	0.50
TCRH105R - 561M	560.00	100	1.3524	0.47
TCRH105R - 681M	680.00	100	1.5192	0.43
TCRH105R - 821M	820.00	100	1.6944	0.39
TCRH105R - 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

TCRH103R - 100 M  
①                      ②                      ③

① Power Inductor SMT Shielded : TCRH103R , TCRH104R , TCRH105R

### ② Inductance

Code	Inductance
100	10.00 $\mu\text{H}$
101	100.00 $\mu\text{H}$
102	1000.00 $\mu\text{H}$

### ② Tolerance

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

