



Power Inductors

SMT Power Inductor Shielded - TCRH124/125/127 Series / 贴片功率电感闭磁式

► SMT Power Inductor Shielded Features

- Magnetically shielded construction
- Compact and thin
- Large Current and Low DCR

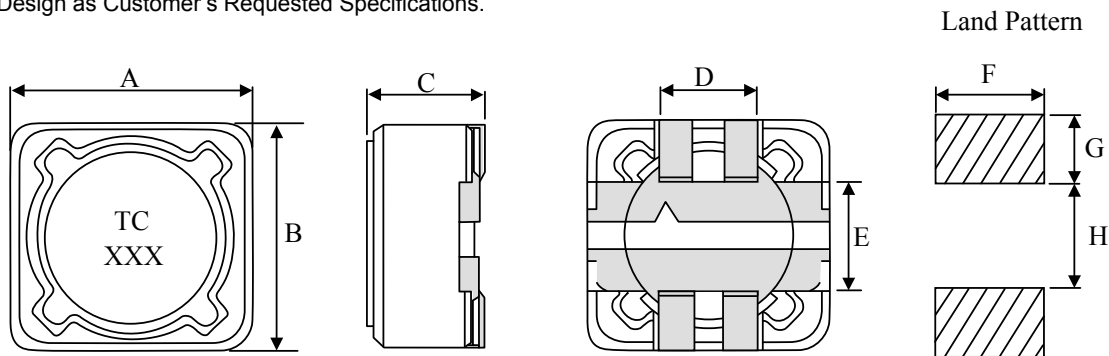
► Applications

VTR, OA equipment, LCD television set, Notebook, portable communication equipments, DC/DC converters, etc..

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

| Type | A(max) | B(max) | C(max) | D ± 0.2 | E ± 0.2 | F | G | H |
|---------|--------|--------|--------|---------|---------|-----|-----|-----|
| TCRH124 | 12.3 | 12.3 | 4.5 | 5.0 | 7.6 | 5.4 | 2.8 | 7.0 |
| TCRH125 | 12.3 | 12.3 | 6.0 | 5.0 | 7.6 | 5.4 | 2.8 | 7.0 |
| TCRH127 | 12.3 | 12.3 | 8.0 | 5.0 | 7.6 | 5.4 | 2.9 | 7.0 |

Note: Design as Customer's Requested Specifications.



► Electrical Characteristics for TCRH124 Series SMT Power Inductor Shielded

| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|----------------|-----------------|------------------|---------------|---------------|
| TCRH124 - 3R9N | 3.90 | 100 | 0.015 | 6.50 |
| TCRH124 - 4R7N | 4.70 | 100 | 0.018 | 5.70 |
| TCRH124 - 6R8N | 6.80 | 100 | 0.023 | 4.90 |
| TCRH124 - 8R2N | 8.20 | 100 | 0.026 | 4.60 |
| TCRH124 - 100M | 10.00 | 100 | 0.028 | 4.50 |
| TCRH124 - 120M | 12.00 | 100 | 0.038 | 4.00 |
| TCRH124 - 150M | 15.00 | 100 | 0.050 | 3.20 |
| TCRH124 - 180M | 18.00 | 100 | 0.057 | 3.10 |
| TCRH124 - 220M | 22.00 | 100 | 0.066 | 2.90 |
| TCRH124 - 270M | 27.00 | 100 | 0.080 | 2.80 |
| TCRH124 - 330M | 33.00 | 100 | 0.097 | 2.70 |
| TCRH124 - 390M | 39.00 | 100 | 0.132 | 2.10 |
| TCRH124 - 470M | 47.00 | 100 | 0.160 | 1.90 |
| TCRH124 - 560M | 56.00 | 100 | 0.190 | 1.80 |
| TCRH124 - 680M | 68.00 | 100 | 0.220 | 1.50 |
| TCRH124 - 820M | 82.00 | 100 | 0.260 | 1.30 |
| TCRH124 - 101M | 100.00 | 100 | 0.308 | 1.20 |
| TCRH124 - 121M | 120.00 | 100 | 0.380 | 1.10 |

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| Part Number | Inductance (μH) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|----------------|-----------------|------------------|---------------|---------------|
| TCRH124 - 151M | 150.00 | 100 | 0.530 | 0.95 |
| TCRH124 - 181M | 180.00 | 100 | 0.620 | 0.85 |
| TCRH124 - 221M | 220.00 | 100 | 0.700 | 0.80 |
| TCRH124 - 271M | 270.00 | 100 | 0.870 | 0.60 |
| TCRH124 - 331M | 330.00 | 100 | 0.990 | 0.50 |

Note: Test Freq.: 100KHz / 0.1V.

Operating Temp.: -40°C ~ +85°C .

Inductance drop=25% typ. at IDC.

▶ Electrical Characteristics for TCRH125 Series SMT Power Inductor Shielded

| Part Number | Inductance (μH) | Test Freq. (Hz) | DCR (Ω) (max) | IDC (A) (max) |
|----------------|-----------------|-----------------|---------------|---------------|
| TCRH125 - 1R3N | 1.30 | 7.96M | 0.012 | 8.00 |
| TCRH125 - 2R1N | 2.10 | 7.96M | 0.014 | 7.00 |
| TCRH125 - 3R1N | 3.10 | 7.96M | 0.017 | 6.00 |
| TCRH125 - 4R4N | 4.40 | 7.96M | 0.020 | 5.00 |
| TCRH125 - 5R8N | 5.80 | 7.96M | 0.021 | 4.40 |
| TCRH125 - 7R5N | 7.50 | 7.96M | 0.024 | 4.20 |
| TCRH125 - 100M | 10.00 | 1K | 0.025 | 4.00 |
| TCRH125 - 120M | 12.00 | 1K | 0.027 | 3.50 |
| TCRH125 - 150M | 15.00 | 1K | 0.030 | 3.30 |
| TCRH125 - 180M | 18.00 | 1K | 0.034 | 3.00 |
| TCRH125 - 220M | 22.00 | 1K | 0.036 | 2.80 |
| TCRH125 - 270M | 27.00 | 1K | 0.051 | 2.30 |
| TCRH125 - 330M | 33.00 | 1K | 0.057 | 2.10 |
| TCRH125 - 390M | 39.00 | 1K | 0.068 | 2.00 |
| TCRH125 - 470M | 47.00 | 1K | 0.075 | 1.80 |
| TCRH125 - 560M | 56.00 | 1K | 0.110 | 1.70 |
| TCRH125 - 680M | 68.00 | 1K | 0.120 | 1.50 |
| TCRH125 - 820M | 82.00 | 1K | 0.140 | 1.40 |
| TCRH125 - 101M | 100.00 | 1K | 0.160 | 1.30 |
| TCRH125 - 121M | 120.00 | 1K | 0.170 | 1.10 |
| TCRH125 - 151M | 150.00 | 1K | 0.230 | 1.00 |
| TCRH125 - 181M | 180.00 | 1K | 0.290 | 0.90 |
| TCRH125 - 221M | 220.00 | 1K | 0.400 | 0.80 |
| TCRH125 - 271M | 270.00 | 1K | 0.460 | 0.75 |
| TCRH125 - 331M | 330.00 | 1K | 0.510 | 0.68 |
| TCRH125 - 391M | 390.00 | 1K | 0.690 | 0.65 |
| TCRH125 - 471M | 470.00 | 1K | 0.770 | 0.58 |
| TCRH125 - 561M | 560.00 | 1K | 0.860 | 0.54 |
| TCRH125 - 681M | 680.00 | 1K | 1.200 | 0.48 |
| TCRH125 - 821M | 820.00 | 1K | 1.340 | 0.43 |
| TCRH125 - 102M | 1000.00 | 1K | 1.530 | 0.40 |

Note: 100~102 Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C.

Inductance drop=10% typ. at IDC.





Power Inductors

► Electrical Characteristics for TCRH127 Series SMT Power Inductor Shielded

| Part Number | Inductance (μ H) | Test Freq. (KHz) | DCR (Ω) (max) | IDC (A) (max) |
|----------------|-----------------------|--------------------|------------------------|---------------|
| TCRH127 - 1R2N | 1.20 | 100 | 0.0070 | 9.80 |
| TCRH127 - 2R4N | 2.40 | 100 | 0.0115 | 8.00 |
| TCRH127 - 3R5N | 3.50 | 100 | 0.0135 | 7.50 |
| TCRH127 - 4R7N | 4.70 | 100 | 0.0158 | 6.80 |
| TCRH127 - 6R1N | 6.10 | 100 | 0.0176 | 6.60 |
| TCRH127 - 7R6N | 7.60 | 100 | 0.0200 | 5.90 |
| TCRH127 - 100M | 10.00 | 1 | 0.0216 | 5.40 |
| TCRH127 - 120M | 12.00 | 1 | 0.0243 | 4.90 |
| TCRH127 - 150M | 15.00 | 1 | 0.0270 | 4.50 |
| TCRH127 - 180M | 18.00 | 1 | 0.0392 | 3.90 |
| TCRH127 - 220M | 22.00 | 1 | 0.0432 | 3.60 |
| TCRH127 - 270M | 27.00 | 1 | 0.0459 | 3.40 |
| TCRH127 - 330M | 33.00 | 1 | 0.0648 | 3.00 |
| TCRH127 - 390M | 39.00 | 1 | 0.0729 | 2.75 |
| TCRH127 - 470M | 47.00 | 1 | 0.100 | 2.50 |
| TCRH127 - 560M | 56.00 | 1 | 0.110 | 2.35 |
| TCRH127 - 680M | 68.00 | 1 | 0.140 | 2.10 |
| TCRH127 - 820M | 82.00 | 1 | 0.160 | 1.95 |
| TCRH127 - 101M | 100.00 | 1 | 0.220 | 1.70 |
| TCRH127 - 121M | 120.00 | 1 | 0.250 | 1.60 |
| TCRH127 - 151M | 150.00 | 1 | 0.280 | 1.42 |
| TCRH127 - 181M | 180.00 | 1 | 0.350 | 1.30 |
| TCRH127 - 221M | 220.00 | 1 | 0.390 | 1.16 |
| TCRH127 - 271M | 270.00 | 1 | 0.560 | 1.06 |
| TCRH127 - 331M | 330.00 | 1 | 0.640 | 0.95 |
| TCRH127 - 391M | 390.00 | 1 | 0.700 | 0.88 |
| TCRH127 - 471M | 470.00 | 1 | 0.980 | 0.79 |
| TCRH127 - 561M | 560.00 | 1 | 1.070 | 0.73 |
| TCRH127 - 681M | 680.00 | 1 | 1.460 | 0.67 |
| TCRH127 - 821M | 820.00 | 1 | 1.640 | 0.60 |
| TCRH127 - 102M | 1000.00 | 1 | 1.820 | 0.55 |

Note: 1R2 ~ 7R6 Test Freq.: 100KHz / 0.1V ; 100 ~ 102 Test Freq. : 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C.

Inductance drop=10% typ. at IDC



Power Inductors

► How to Order

1 TCRH124 - **2** 3R9 **3** M

1 SMT Power Inductor Shielded : TCRH124, TCRH125, TCRH127

2 Inductance

| Code | Inductance |
|------|----------------|
| 1R2 | 1.20 μ H |
| 100 | 10.00 μ H |
| 101 | 100.00 μ H |

3 Tolerance

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