

Power Choke Coil PCMC135T type

■ Features

High performance (Isat) realized by metal dust core.

Low profile : Thickness max. 5.2mm

Low loss realized with low DCR

Capable of corresponding high frequency (3MHz)

100% lead (Pb) free meet RoHS standard

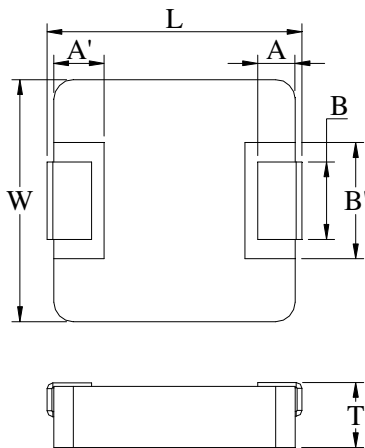
■ Application

DC/DC converter for CPU in Notebook PC

Thin type on-board power supply module for exchanger

VRM for server

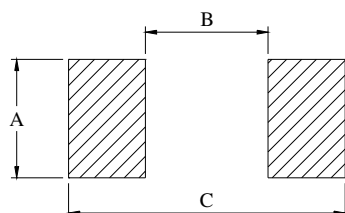
■ Outline Dimensions



| Code | Dimensions(mm) | | |
|------|---|--------------|------------------------------|
| | R15 / R47 / R50 / R56 R62 / R68 / R82 / 1R0 1R2 / 1R5 | R36 | 2R2 / 3R3 / 4R7 6R3 / 6R8 |
| L | 13.45 ± 0.35 | 13.65 ± 0.35 | 13.45 ± 0.35 |
| W | 12.6 ± 0.2 | 12.6 ± 0.2 | 12.6 ± 0.2 |
| T | 4.8 ± 0.2 | 5.0 ± 0.2 | 4.8 ± 0.2 |
| A | 2.0 ± 0.5 | 2.0 ± 0.5 | 2.0 ± 0.5 |
| A' | 2.5 ± 0.1 | 2.5 ± 0.1 | 2.5 ± 0.1 |
| B | 4.0 ± 0.5 | 4.0 ± 0.5 | 3.0 ± 0.5 |
| B' | 6.0 ± 0.2 | 6.0 ± 0.2 | 6.0 ± 0.2 |
| H | 0 ~ +0.15 | 0 ~ +0.15 | 0 ~ +0.15 |

Recommend Land Pattern Dimensions

The customer shall determine the land dimensions shown above after confirming and safety.



| | |
|---|------|
| A | 5.0 |
| B | 8.0 |
| C | 14.5 |

Unit : mm

Specifications

| Part Number | L0 Inductance (μH) @ (0A) | R_{dc} (m Ω) | | Heat Rating Current DC Amps. Idc (A) | Saturation Current DC Amps. Isat (A) |
|----------------|--|-------------------------|---------|---|---|
| | | Typical | Maximum | Typical | Typical |
| PCMC135T-R15MF | 0.15 | 0.55 | 0.7 | 45.0 | 110.0 |
| PCMC135T-R36MF | 0.36 | 0.77 | 1.1 | 41.0 | 75.0 |
| PCMC135T-R47MF | 0.47 | 1.1 | 1.3 | 38.0 | 65.0 |
| PCMC135T-R50MF | 0.50 | 1.2 | 1.5 | 36.0 | 55.0 |
| PCMC135T-R56MF | 0.56 | 1.2 | 1.5 | 36.0 | 55.0 |
| PCMC135T-R62MF | 0.62 | 1.5 | 1.7 | 34.0 | 54.0 |
| PCMC135T-R68MF | 0.68 | 1.5 | 1.7 | 34.0 | 54.0 |
| PCMC135T-R82MF | 0.82 | 1.8 | 2.1 | 31.0 | 53.0 |
| PCMC135T-1R0MF | 1.00 | 2.1 | 2.5 | 29.0 | 50.0 |
| PCMC135T-1R2MF | 1.20 | 2.6 | 3.0 | 25.0 | 49.0 |
| PCMC135T-1R5MF | 1.50 | 3.4 | 4.1 | 23.0 | 48.0 |
| PCMC135T-2R2MF | 2.20 | 4.6 | 5.5 | 20.0 | 32.0 |
| PCMC135T-3R3MF | 3.30 | 7.7 | 9.2 | 15.0 | 32.0 |
| PCMC135T-4R7MF | 4.70 | 12.8 | 15.0 | 12.0 | 27.0 |
| PCMC135T-6R3MF | 6.30 | 15.4 | 18.5 | 11.0 | 21.0 |
| PCMC135T-6R8MF | 6.80 | 15.4 | 18.5 | 11.0 | 21.0 |

* : If you require another part number please contact with us.

** : Inductance Tolerance $\pm 20\%$

Note 1. : All test data is referenced to 25°C ambient.

Note 2. : Idc : DC current (A) that will cause an approximate ΔT of 40°C

Note 3. : Isat : DC current (A) that will cause Lo to drop approximately 20%

Note 4. : Operating Temperature Range -55°C to + 125°C

Note 5. : The part temperature (ambient + temp rise) should not exceed 125°C under worse case operating conditions. Circuit design , component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

Note 6. : The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Current Characteristic

