

### Power Choke Coil PCMB104T type

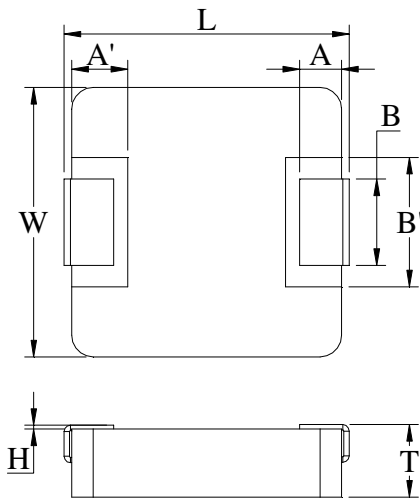
#### ■ Features

- High performance (Isat) realized by metal dust core.
- Low profile : Thickness max. 4.0mm
- Low loss realized with low DCR
- Capable of corresponding high frequency (1MHz)
- 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

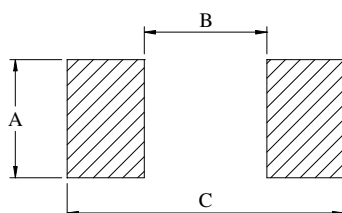
#### ■ Outline Dimensions



| Code | Dimensions (mm)   |   |
|------|---|---|
|      | R15 / R22 / R36 / R39<br>R45 / R47 / R56 / R68<br>1R0 / 1R5 | 1R8 / 2R0 / 2R2 / 3R3 / 4R7<br>5R6 / 6R8 / 8R2 / 100 / 150<br>220 / 330 / 470 / 680 |
| L    | 11.15 ± 0.35  | 10.85 ± 0.35  |
| W    | 10 ± 0.3  |   |
| T    | 3.8 ± 0.2   |   |
| A    | 2.0 ± 0.5   |   |
| A'   | 2.5 ± 0.1   |   |
| B    | 3.0 ± 0.5   |   |
| B'   | 5.0 ± 0.2   |   |
| H    | 0 ~ +0.15   |   |

#### ■ Recommend Land Pattern Dimensions

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



|   |      |
|---|------|
| A | 4.1  |
| B | 5.4  |
| C | 13.6 |

Unit : mm

### ■ Specifications

| Part Number     | L0 Inductance<br>( $\mu\text{H}$ )<br>@ (0A) | $R_{dc}$ ( $\text{m}\Omega$ ) |         | Heat Rating Current<br>DC Amps. I <sub>dc</sub> ( A ) | Saturation Current<br>DC Amps. I <sub>sat</sub> ( A ) |
|-----------------|--|-------------------------------|---------|---|---|
|                 |  | Typical                       | Maximum | Typical   | Typical   |
| PCMB104T-R15MS  | 0.15   | 0.5                           | 0.65    | 40.0  | 75.0  |
| PCMB104T-R22MS  | 0.22   | 0.9                           | 1.0     | 35.0  | 60.0  |
| PCMB104T-R36MT  | 0.36   | 1.05                          | 1.2     | 30.0  | 50.0  |
| PCMB104T-R39MT  | 0.39   | 1.1                           | 1.2     | 31.0  | 45.0  |
| PCMB104T-R45MS  | 0.45   | 1.1                           | 1.3     | 25.0  | 27.0  |
| PCMB104T-R47MS  | 0.47   | 1.53                          | 1.68    | 30.0  | 40.0  |
| PCMB104T-R56MT  | 0.56   | 1.6                           | 1.8     | 25.0  | 33.0  |
| PCMB104T-R68MS  | 0.68   | 2.1                           | 2.4     | 23.0  | 30.0  |
| PCMB104T-1R0MT  | 1.0  | 3.0                           | 3.3     | 18.0  | 28.0  |
| PCMB104T-1R5MS  | 1.5  | 3.8                           | 4.2     | 16.0  | 32.0  |
| PCMB104T-1R8MS  | 1.8  | 4.5                           | 5.0     | 15.0  | 15.0  |
| PCMB104T-2R0MS  | 2.0  | 5.2                           | 5.8     | 14.0  | 14.0  |
| PCMB104T-2R2MS  | 2.2  | 6.0                           | 7.0     | 12.0  | 18.0  |
| PCMB104T-3R3MS  | 3.3  | 10.8                          | 11.8    | 10.0  | 16.0  |
| PCMB104T-4R7MS  | 4.7  | 17.0                          | 20.0    | 8.5   | 15.0  |
| PCMB104T-5R6MS  | 5.6  | 20.0                          | 23.0    | 8.0   | 14.0  |
| PCMB104T-6RR8MS | 6.8  | 22.5                          | 25.0    | 7.0   | 12.0  |
| PCMB104T-8R2MS  | 8.2  | 25.0                          | 27.0    | 6.0   | 9.0   |
| PCMB104T-100MS  | 10.0   | 27.0                          | 30.0    | 7.5   | 8.5   |
| PCMB104T-150MS  | 15.0   | 40.0                          | 45.0    | 6.25  | 7.0   |
| PCMB104T-220MS  | 22.0   | 60.0                          | 66.0    | 5.0   | 5.5   |
| PCMB104T-330MS  | 33.0   | 85.0                          | 92.0    | 4.4   | 5.0   |
| PCMB104T-470MS  | 47.0   | 130.0                         | 145.0   | 3.3   | 3.5   |
| PCMB104T-680MS  | 68.0   | 178.0                         | 195.0   | 2.3   | 3.0   |

\* : 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. : I<sub>dc</sub> : DC current (A) that will cause an approximate  $\Delta T$  of 40°C

Note 3. : I<sub>sat</sub> : DC current (A) that will cause L<sub>0</sub> to drop approximately 30%

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

