

### Power Choke Coil PCMC133E type

#### ■ Features

High performance (Isat) realized by metal dust core.

Low profile : Thickness max. 3.5mm

Low loss realized with low DCR

Capable of corresponding high frequency (3MHz)

100% lead (Pb) free meet RoHS standard

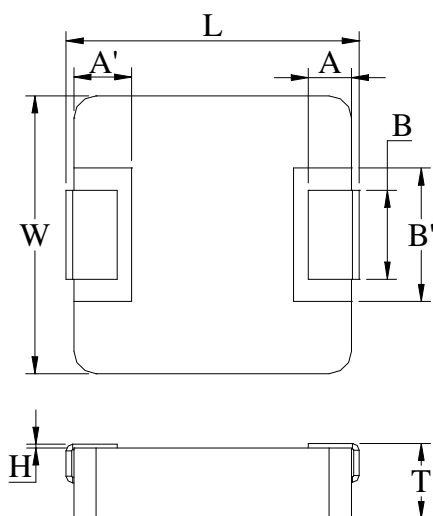
#### ■ Application

DC/DC converter for CPU in Notebook PC

Thin type on-board power supply module for exchanger

VRM for server

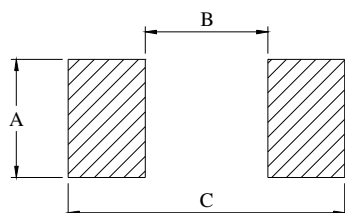
#### ■ Outline Dimensions



Code	Dimensions (mm)	
	R22 / R33 / R47 / R56 R60/ R62 / R68 / R82	1R0 / 1R5 / 2R2 / 3R3 4R7
L	13.45 ± 0.35	
W	12.6 ± 0.2	
T	3.3 ± 0.2	
A	2.0 ± 0.5	
A'	2.5 ± 0.1	
B	4.0 ± 0.5	3.0 ± 0.5
B'	6.0 ± 0.2	
H	+0.15/+0	

### 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 ( $\mu\text{H}$ ) @ (0A)	$R_{dc}$ (m $\Omega$ )		Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
		Typical	Maximum	Typical	Typical
PCMC133E-R22MF	0.22	1.1	1.3	38.0	65.0
PCMC133E-R33MF	0.33	1.3	1.5	36.5	62.0
PCMC133E-R47MF	0.47	1.7	2.0	32.0	55.0
PCMC133E-R56MF	0.56	1.8	2.2	29.0	51.0
PCMC133E-R60MF	0.60	1.8	2.2	29.0	51.0
PCMC133E-R62MF	0.62	1.8	2.2	29.0	51.0
PCMC133E-R68MF	0.68	2.3	2.5	28.0	49.0
PCMC133E-R82MF	0.82	2.6	3.0	25.0	44.0
PCMC133E-1R0MF	1.0	3.3	3.5	24.0	40.0
PCMC133E-1R5MF	1.5	5.1	5.5	19.0	35.0
PCMC133E-2R2MF	2.2	7.2	8.0	16.0	29.0
PCMC133E-3R3MF	3.3	10.0	12.0	12.0	27.0
PCMC133E-4R7MF	4.7	16.0	18.0	9.0	22.0

\* : 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  $\Delta T$  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

