



## Power Choke Coil MHIC0650 type

### ■ Features

High performance (Isat) realized by metal dust core.

Low profile : Thickness max. 5.0mm

Low loss realized with low DCR

Capable of corresponding high frequency (3MHz)

100% lead (Pb) free meet RoHS standard

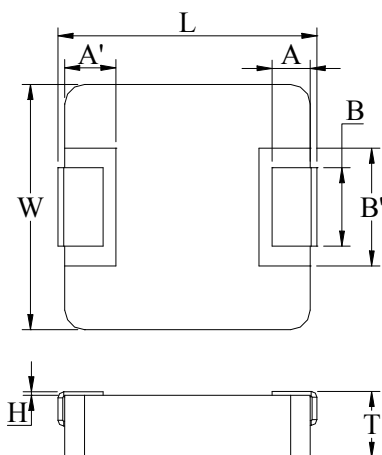
### ■ Application

DC/DC converter for CPU in Notebook PC

Thin type on-board power supply module for exchanger

VRM for server

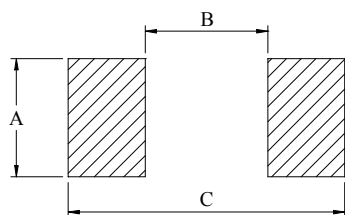
### ■ Outline Dimensions



Code	Dimensions (mm)
L	7.05 ± 0.35
W	6.6 ± 0.2
T	4.8 ± 0.2
A	1.6 ± 0.3
A'	2.0 ± 0.1
B	3.0 ± 0.3
B'	3.6 ± 0.2
H	0 ~ +0.15

### ■ Recommend Land Pattern Dimensions

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



A	3.5
B	3.7
C	8.4

Unit : mm



## ■ Specifications

Part Number	L0 Inductance ( $\mu\text{H}$ ) @ (0A)	$R_{dc}$ ( $\text{m}\Omega$ )		Heat Rating Current DC Amps. $I_{dc}$ ( A )	Saturation Current DC Amps. $I_{sat}$ ( A )
		Typical	Maximum	Typical	Typical
MHIC0650-R22M	0.22	1.2	1.4	30.0	50.0
MHIC0650-R47M	0.47	3.5	3.9	20.0	30.0
MHIC0650-1R0M	1.00	5.6	6.5	15.0	20.0
MHIC0650-1R2M	1.20	6.7	7.5	12.0	13.0
MHIC0650-2R2M	2.20	11.0	13.6	11.0	15.0

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

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

Note 1. : All test data is referenced to  $25^{\circ}\text{C}$  ambient.

Note 2. : Test Condition:100KHz, 1.0Vrms

Note 3. :  $I_{dc}$  : DC current (A) that will cause an approximate  $\Delta T$  of  $40^{\circ}\text{C}$

Note 4. :  $I_{sat}$  : DC current (A) that will cause L0 to drop approximately 20%

Note 5. : Operating Temperature Range  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

Note 6. : The part temperature (ambient + temp rise ) should not exceed  $125^{\circ}\text{C}$  under the worst 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 7. : The rated current as listed is either the saturation current or the heating current depending on which value is lower.



### ■ Current Characteristic

