



## Power Choke Coil MHIB0420 type

### ■ Features

High performance (Isat) realized by metal dust core.

Low profile : Thickness max. 2.0mm

Low loss realized with low DCR

Capable of corresponding high frequency (3MHz)

100% lead (Pb) free meet RoHS standard

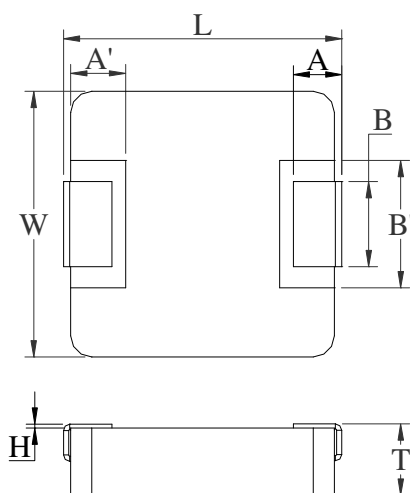
### ■ Application

DC/DC converter for CPU in Notebook PC

Thin type on-board power supply module for exchanger

VRM for server

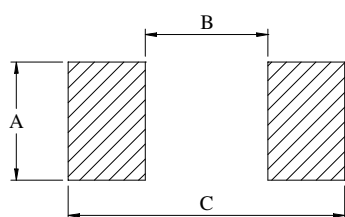
### ■ Outline Dimensions



Code	Dimensions (mm)
L	4.15 ± 0.35
W	4.0 ± 0.3
T	1.8 ± 0.2
A	0.8 ± 0.3
A'	1.0 ± 0.1
B	1.5 ± 0.3
B'	2.2 ± 0.2
H	0 ~ +0.15

### ■ Recommend Land Pattern Dimensions

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



A	2.5
B	2.2
C	5.2

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
MHIB0420-R10M	0.10	3.5	4.0	12.0	22.0
MHIB0420-R22M	0.22	6.0	6.6	9.0	12.5
MHIB0420-R47M	0.47	12.5	14.0	7.0	9.5
MHIB0420-R56M	0.56	14.0	16.0	6.5	10.0
MHIB0420-R68M	0.68	16.0	18.0	6.0	9.0
MHIB0420-1R0M	1.0	24.0	27.0	4.5	7.0
MHIB0420-1R2M	1.2	24.0	27.0	4.5	7.0
MHIB0420-1R5M	1.5	38.0	46.0	4.0	6.0
MHIB0420-2R2M	2.2	52.0	58.0	3.0	5.0
MHIB0420-3R3M	3.3	74.0	87.0	2.5	4.0
MHIB0420-4R7M	4.7	92.0	105.0	2.2	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 $^{\circ}\text{C}$  ambient.

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

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

Note 4. : Isat : DC current (A) that will cause L0 to drop approximately 30%

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

