



## Power Choke Coil MHIB1030 type

### ■ Features

High performance (Isat) realized by metal dust core.

Low profile : Thickness max. 3.0mm

Low loss realized with low DCR

Capable of corresponding high frequency ( $R \leq 10\mu\text{H} : 3\text{MHz} / R > 10\mu\text{H} : 1\text{MHz}$ )

100% lead (Pb) free meet RoHS standard

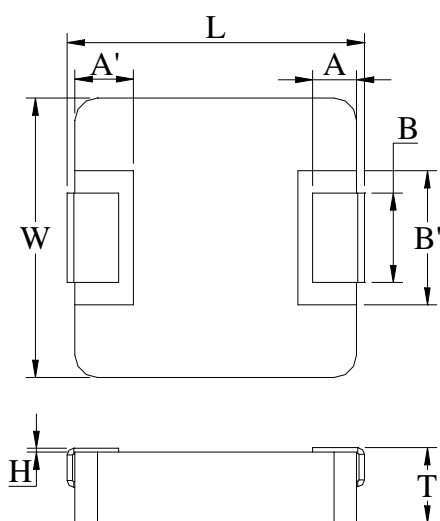
### ■ Application

DC/DC converter for CPU in Notebook PC

Thin type on-board power supply module for exchanger

VRM for server

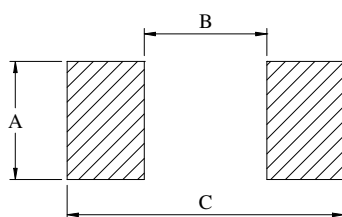
### ■ Outline Dimensions



Code	Dimensions (mm)	
	R22 / R24 / R33 / R36 R47 R56 / R68	R82 / 1R0 / 1R5 / 2R2 3R3 / 4R7 / 8R2 / 100 150 / 220
L	11.15 ± 0.35	10.85 ± 0.35
W	10 ± 0.3	
T	2.8 ± 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 below after confirming and safety.



A	4.1
B	5.4
C	13.6

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
MHIB1030-R22M	0.22	1.07	1.2	30.0	50.0
MHIB1030-R24M	0.24	1.1	1.27	30.0	50.0
MHIB1030-R33M	0.33	1.3	1.6	23.0	32.0
MHIB1030-R36M	0.36	1.3	1.6	23.0	28.0
MHIB1030-R47M	0.47	2.1	2.5	23.0	26.0
MHIB1030-R56M	0.56	2.4	3.0	22.0	24.0
MHIB1030-R68M	0.68	2.9	3.4	21.0	23.0
MHIB1030-R82M	0.82	4.0	4.6	18.0	22.5
MHIB1030-1R0M	1.00	5.3	6.0	15.0	21.0
MHIB1030-1R5M	1.50	6.5	7.5	13.5	20.0
MHIB1030-2R2M	2.20	8.0	9.0	13.0	16.0
MHIB1030-3R3M	3.30	14.5	16.0	9.0	14.0
MHIB1030-4R7M	4.70	20.5	22.5	7.0	13.0
MHIB1030-8R2M	8.20	35.0	45.0	5.0	8.5
MHIB1030-100M	10.0	50.0	55.0	5.0	7.5
MHIB1030-150M	15.0	59.0	65.0	4.0	6.0
MHIB1030-220M	22.0	90.0	99.0	3.0	5.0

\* : 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 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

