Power Choke Coil MHIB1045 type

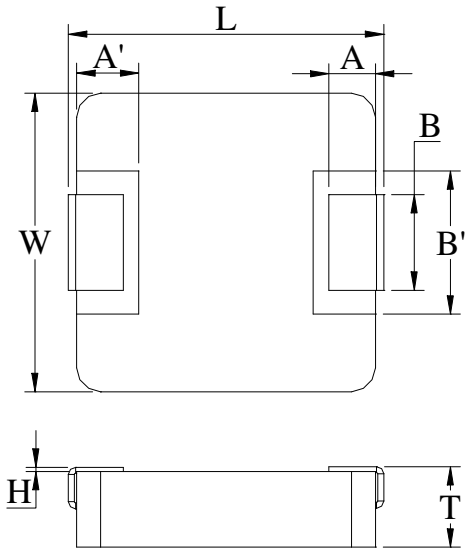
Features

High performance (Isat) realized by metal dust core.
Low profile：Thickness max. 4.5mm
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

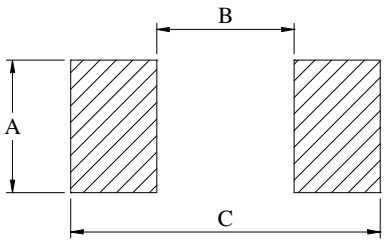
Outline Dimensions



Code	Dimensions (mm)	
	1R0	2R2 / 3R3 / 4R7 5R6 / 6R8
L	11.15 ± 0.35	10.85 ± 0.35
W	10 ± 0.3	
T	4.3 ± 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 (μH) @ (0A)	R_{dc} (mΩ)		Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
		Typical	Maximum	Typical	Typical
MHIB1045-1R0M	1.0	2.7	3.2	22.0	34.0
MHIB1045-2R2M	2.2	5.8	7.0	14.0	16.0
MHIB1045-3R3M	3.3	11.0	13.2	11.0	14.5
MHIB1045-4R7M	4.7	13.2	15.0	10.0	13.0
MHIB1045-5R6M	5.6	16.0	18.5	8.5	10.5
MHIB1045-6R8M	6.8	21.5	24.0	7.5	9.5

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

**：Inductance Tolerance ± 20%

Note 1.： All test data is referenced to 25℃ ambient.

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

Note 3.： Idc : DC current (A) that will cause an approximate ΔT of 40℃

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

Note 5.： Operating Temperature Range -55℃ to + 125℃

Note 6.： The part temperature (ambient + temp rise) should not exceed 125℃ 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