

RoHS & Halogen Free & REACH Compliance.

## SPECIFICATION FOR APPROVAL

**Customer :** \_\_\_\_\_

**Customer P/N:** \_\_\_\_\_

**Drawing No :** C3X2301284

**Quantity :** X      **Pcs.**      **Date :** 2023/9/14

**P/N :** MHCB06040-R15M-C1R667

<b>SPECIFICATION ACCEPTED BY:</b>	
<b>COMPONENT ENGINEER</b>	
<b>ELECTRICAL ENGINEER</b>	
<b>MECHANICAL ENGINEER</b>	
<b>APPROVED</b>	
<b>REJECTED</b>	

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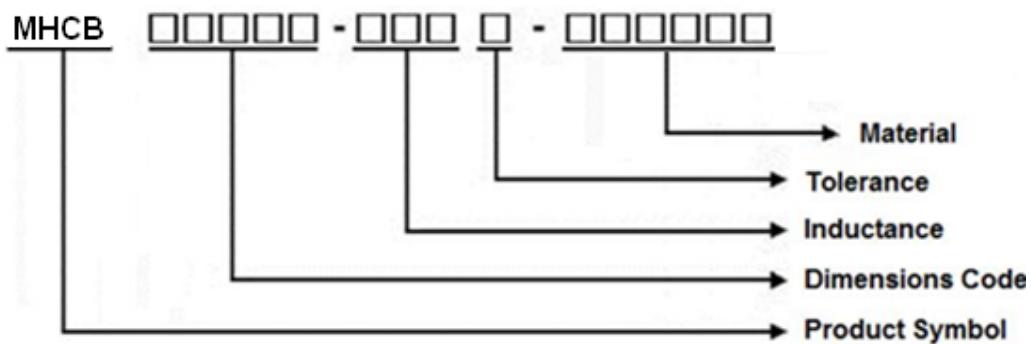


## REVISIONS

# **MHCBO6040 Series Specification**

**1 | Scope:** This specification applies to Large current and Low Loss SMD Power INDUCTOR

## 2 || Part Numbering:

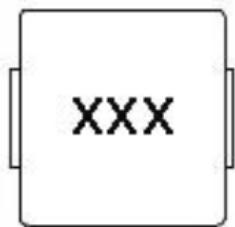


## 3 | Rating:

Operating Temperature: - 55°C ~ 125°C

Storage Temperature: (on tape & reel): -20 °C to +40 °C; 75% RH max.

## 4 || Marking:



## Marking : R15

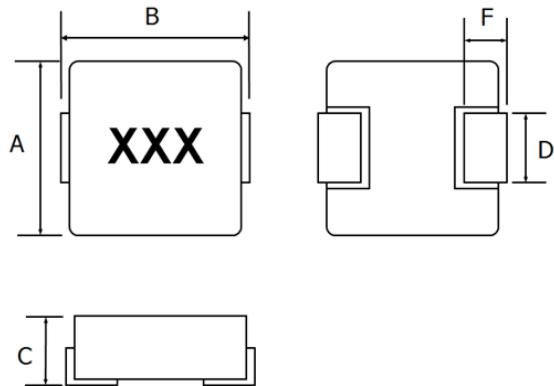
**Marking color : Black**

## 5 || Standard Testing Condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20 to 30°C
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

## MHCB06040 Series Specification

### 6 Configuration and Dimensions:



Dimensions in mm

TYPE	MHCB06040
A	<b>6.8 ± 0.2</b>
B	<b>7.2 ± 0.3</b>
C	<b>3.8 ± 0.2</b>
D	<b>3.0 ± 0.5</b>
F	<b>1.6 ± 0.5</b>

### 7 Electrical Characteristics:

Part No.	Inductance ( $\mu$ H)	Tolerance (±%)	Test Freq.	Irms(A) Typ	Isat(A) Typ	RDC( $m\Omega$ ) ±7%	Marking
MHCB06040-R15M-C1R667	0.15	20	100kHz, 0.5V	36	45	0.66	R15

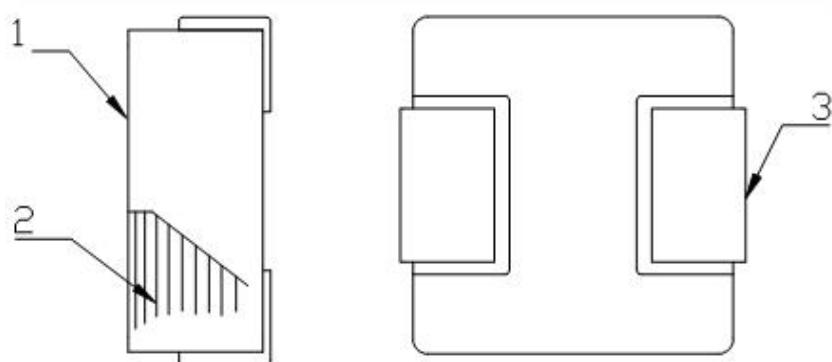
**Note:**

1. Operating temperature range  $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Isat for Inductance drop 30% from its value without current.
3. Irms for a  $40^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient.
4. The part temperature (ambient + temp rise) should not exceed  $125^{\circ}\text{C}$  under worst case operating conditions.  
Circuit design  $125^{\circ}\text{C}$  under worst case operating conditions. Component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
5. Absolute maximum voltage 30VDC (Based on test method, it may not be the same under different application, it is recommended to verify first.)

## MHCB06040 Series Specification

### 8 | MHCB06040 Series

#### 8.1 Construction:



#### 8.2 Material List:

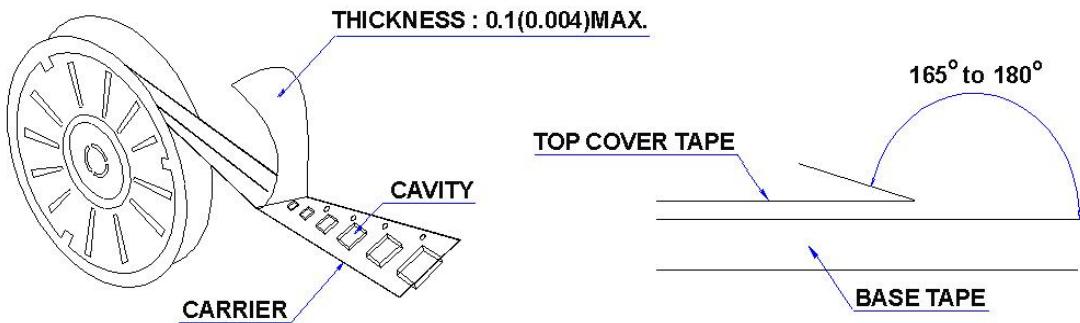
ITEM	PART	DESCRIPTION
1	CORE	Magnetic Metal Powder
2	WIRE	Copper wire
3	TERMINAL	TERMINAL COPPER

## MHCB06040 Series Specification

### 9 | PACKAGING

#### 9.1 Packaging -Cover tape

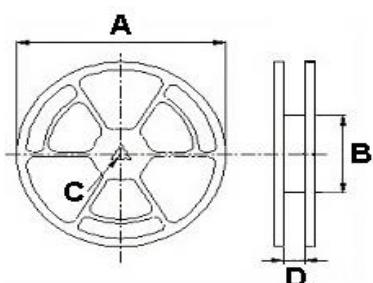
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



#### 9.2 Packaging Quantity

TYPE	PCS/REEL
MHCB06040	1000

#### 9.3 Reel Dimensions



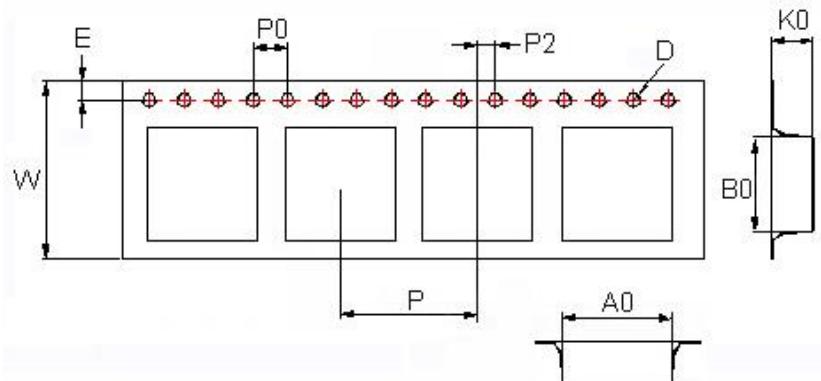
Dimensions in mm

TYPE	A	B	C	D
MHCB06040	330	100	13	16

## MHCB06040 Series Specification

### 9 PACKAGING

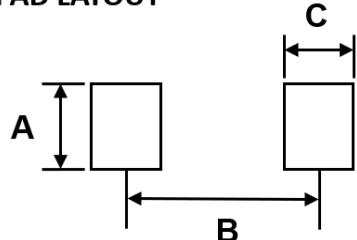
#### 9.4 Tape Dimensions in mm



TYPE	A0	B0	K0	D	E	W	P	P0	P2
MHCB06040	7.15	7.6	4.4	1.55	1.75	16	12	4	2

### 10 Recommended Pattern

#### PAD LAYOUT



Dimensions in mm

TYPE	A(mm)	B(mm)	C(mm)
MHCB06040	3.5	6.05	2.35

### 11 Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
5. The moisture sensitivity level (MSL) of products is classified as level 1.

## MHCB06040 Series Specification

### 12 Graph:

