



ISO9001 ISO14001 IATF16949 CHILISIN ELECTRONICS CORP.

RoHS & Halogen Free & REACH Compliance.

## SPECIFICATION FOR APPROVAL

Customer : 各廠家

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

Drawing No : \_\_\_\_\_

Quantity : 0 Pcs. Date : 2018/11/13

Chilisin P/N : MHCI05018-1R0M-R8A

SPECIFICATION ACCEPTED BY:	
COMPONENT ENGINEER	
ELECTRICAL ENGINEER	
MECHANICAL ENGINEER	
APPROVED	
REJECTED	

**奇力新電子股份有限公司**  
Chilisin Electronics Corp  
No. 29, Alley 301, Tehhsin Rd.,  
Hukou, Hsinchu 303, Taiwan  
TEL : +886-3- 599-2646  
FAX : +886-3- 599-9176  
E-mail : sales@chilisin.com  
http : //www.chilisin.com

**東莞奇力新電子(東莞廠)有限公司**  
Chilisin Electronics (Dongguan) Co., Ltd.  
No. 78, Puxing Rd., Yuliangwei Administration Area,  
Qingxi Town, Dongguan City, Guangdong, China  
TEL : +86-769-8773-0251~3  
FAX : +86-769-8773-0232  
E-mail : cect@chilisin.com

**奇力新電子(越南廠)有限公司**  
Chilisin Electronics (Vietnam) Limited  
No 143 - 145, Road No 10, VSIP Hai Phong,  
Lap Le Commune, Thuy Nguyen Dist,  
Haiphong City, Vietnam  
Tel : 84-316 255 688 Fax : 84-316 255  
689  
E-mail : sales@chilisin.com

**奇力新電子(湖南廠)有限公司**  
HuNan Chilisin Electronics Technology Co., Ltd  
No. 8, Shaziao Liangshuijing Town, Yuanling  
County, Huaihua City, Hunan Province 419601,  
China  
Tel : 86-745-867-5882  
E-mail : cect@chilisin.com

Drawn by  
陳瑞揚 ryan.chen

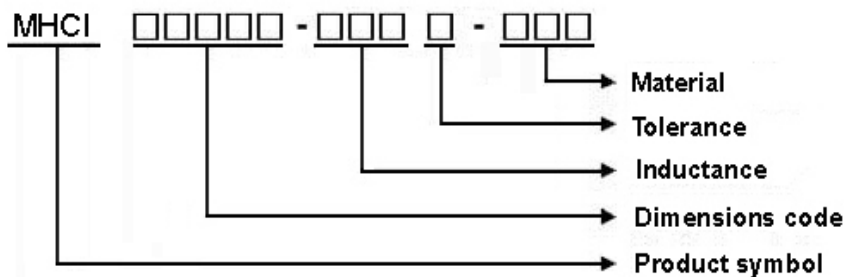
Checked by  
溫美玲 ling

Approved by  
陳瑞揚 ryan.chen

# MHCI05018 Series Specification

**1 Scope:** This specification applies to large current and low loss SMD shielding power inductor.

**2 Part Numbering:**

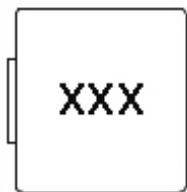


**3 Rating:**

Operating Temperature:  $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (Including self - temperature rise)

Storage Temperature: (on tape & reel):  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ ; 75% RH max.

**4 Marking:**



**Ex : MHCI05018-1R0M-R8A**

**Marking : 1R0**

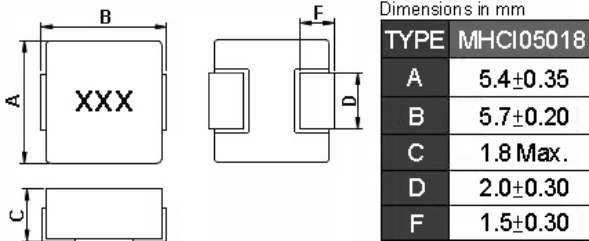
**Marking color : Black**

**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

# MHCI05018 Series Specification

## 6 Configuration and Dimensions:



## 7 Electrical Characteristics:

Part No.	Inductance (uH)	Tolerance (±%)	Test Freq.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.	RDC(mΩ) Max.	Marking
MHCI05018-R47M-R8A	0.47	20	100kHz,0.5V	10.5	15.5	9(7.7typ)	R47
MHCI05018-1R0M-R8A	1	20	100kHz,0.5V	8	9	17(15typ)	1R0
MHCI05018-2R2M-R8A	2.2	20	100kHz,0.5V	5	6.5	35(30typ)	2R2
MHCI05018-3R3M-R8A	3.3	20	100kHz,0.5V	4.5	5	58(52typ)	3R3
MHCI05018-4R7M-R8A	4.7	20	100kHz,0.5V	3.5	4	85(78typ)	4R7
MHCI05018-6R8M-R8A	6.8	20	100kHz,0.5V	2.8	3.4	120(107typ)	6R8
MHCI05018-100M-R8A	10	20	100kHz,0.5V	2.5	3	155(140typ)	100

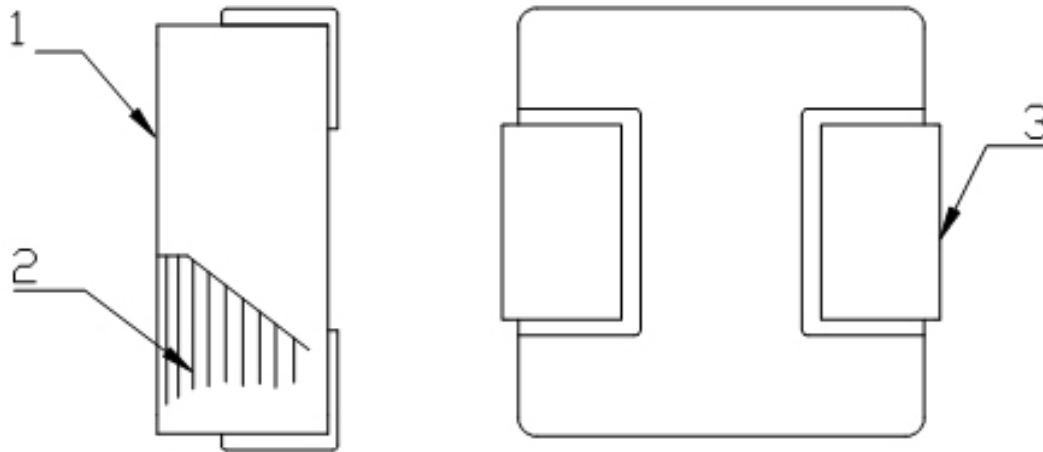
### Note:

1. Operating temperature range -55°C~125°C (Including self - temperature rise)
2. I<sub>sat</sub> for Inductance drop 30% from its value without current.
3. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient.
4. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.  
Circuit design 125°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

## MHCI05018 Series Specification

### 8 MHCI05018 Series

#### 8.1 Construction:



#### 8.2 Material List:

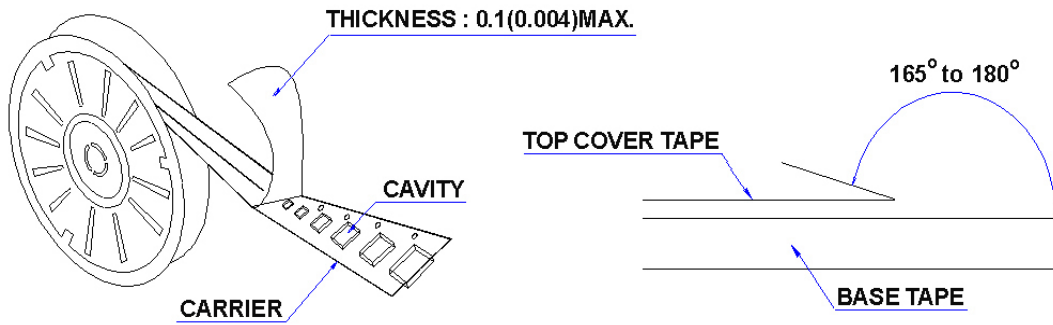
No	Part	Material
1	CORE	Alloy powder
2	WIRE	Copper wire
3	TERMINAL	TERMINAL COPPER

# MHCI05018 Series Specification

## 9 Packaging:

### 9.1 Packaging -Cover Tape

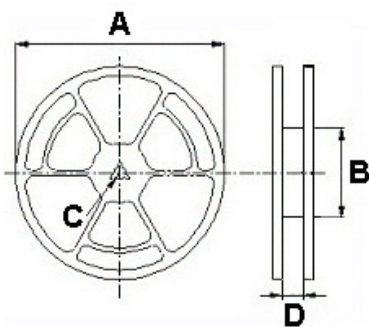
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



### 9.2 Packaging Quantity

TYPE	PCS/REEL
MHCI05018	1000

### 9.3 Reel Dimensions



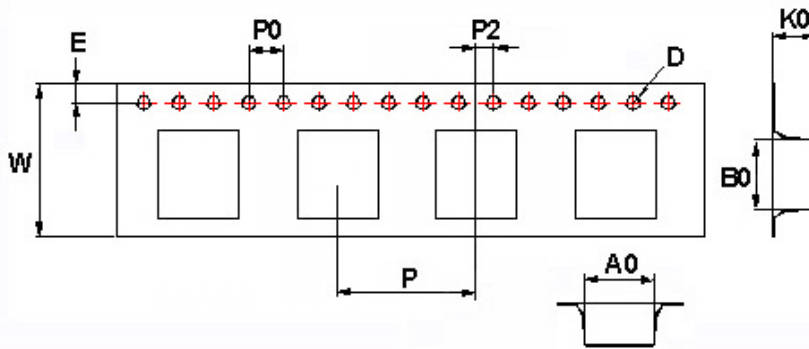
Dimensions in mm

TYPE	A	B	C	D
MHCI05018	330	100	13	16

# MHCI05018 Series Specification

## 9 Packaging:

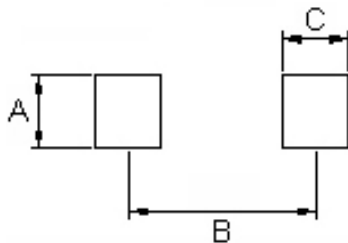
### 9.4 Tape Dimensions in mm



TYPE	A0	B0	K0	D	E	W	P	P0	P2
MHCI05018	5.9	6.2	2.2	1.55	1.75	16	12	4	2

## 10 Recommended Land Pattern:

PAD LAYOUT



Dimensions in mm

TYPE	A(in/mm)	B(in/mm)	C(in/mm)
MHCI05018	0.098/2.5	0.161/4.1	0.075/1.9

## 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.



ISO9001 ISO14001 IATF16949 CHILISIN ELECTRONICS CORP.

# MHCI05018 Series Specification

12 Graph: MHCI05018-1R0M-R8A

