



ISO9001 & ISO14001 & TS16949 **CHILISIN ELECTRONICS CORP.**

**RoHS & Halogen Free & REACH Compliance.**

## SPECIFICATION FOR APPROVAL

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

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

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

Quantity : **0** Pcs. Date : **2015/03/02**

Chilisin P/N : **MHCH252010A-SERIES**

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

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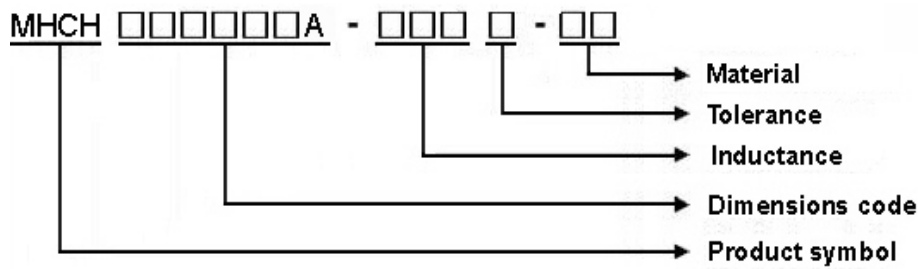
Drawn by <b>陳瑞揚 ryan.chen</b>	Checked by <b>邱明傑 Joseph.Chiu</b>	Approved by <b>陳瑞揚 ryan.chen</b>
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YG15300019

# MHCH252010A Series Specification

**1 Scope:** This specification applies to Molding power inductors

**2 Part Numbering:**



**3 Rating:**

Operating Temperature:  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (Including self - temperature rise)

Storage Temperature:  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (after PCB)

$-5^{\circ}\text{C} \sim 35^{\circ}\text{C}$ , Humidity 45%~85% (before PCB)

**4 Marking:**

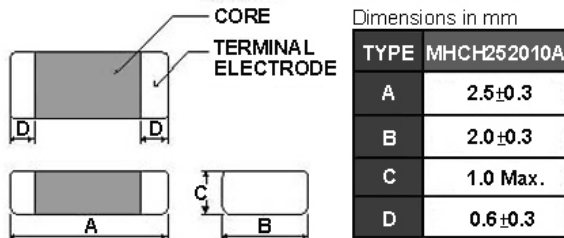


**5 Standard Testing Condition**

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20±2°C
Humidity	Ordinary Humidity(25 to 85% RH)	60 to 70 % RH

## MHCH252010A Series Specification

### 6 Configuration and Dimensions:



### 7 Electrical Characteristics:

Part No.	Inductance (uH)	Test Freq.	I <sub>rms</sub> (A) Max.(Typ)	I <sub>sat</sub> (A) Max.(Typ)	RDC(mΩ) Max.(Typ)	Tolerance (±%)
MHCH252010A-R24M-Q8	0.24	2MHz,0.2V	5.5(6.5)	8.0(9.5)	18(13)	20
MHCH252010A-R33M-Q8	0.33	2MHz,0.2V	4.8(5.5)	6.5(8.0)	24(18)	20
MHCH252010A-R47M-Q8	0.47	2MHz,0.2V	3.9(4.5)	5.0(6.2)	35(27)	20
MHCH252010A-R68M-Q8	0.68	2MHz,0.2V	3.7(4.2)	4.5(5.6)	40(32)	20
MHCH252010A-1R0M-Q8	1	2MHz,0.2V	3.0(3.5)	3.7(4.6)	53(45)	20
MHCH252010A-1R5M-Q8	1.5	2MHz,0.2V	2.4(2.8)	3.1(3.8)	75(68)	20

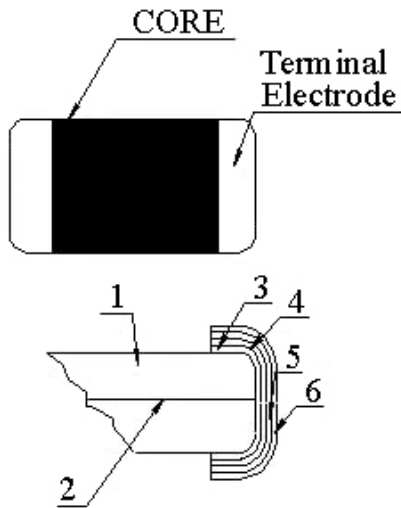
#### NOTE:

1. Operating temperature range — 4 0 °C ~ 1 2 5 °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. All test data is referenced to 25°C ambient

# MHCH252010A Series Specification

## 8 MHCH252010A Series

### 8.1 Construction:

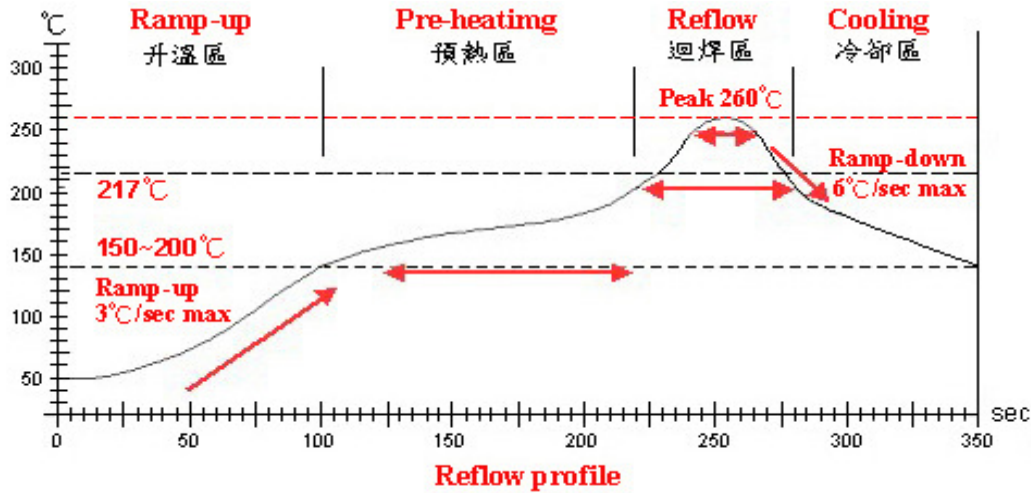


### 8.2 Material List:

NO	Part	Description
1	Core	Metal Powder
2	Wire	Copper wire
3	Sputter/Plating	Cu
4	Silver Electrode	Ag
5	Plating	Ni
6	Plating	Sn



## MHCH252010A Series Specification



Lead-Free(LF) 標準溫度分析範圍

Refer to J-STD-020C

管制項目 Item.	升温區 Ramp-up	預熱區 Pre-heating	迴焊區 Reflow	Peak Temp	冷卻區 Cooling
溫度範圍 Temp. scope	R.T. ~ 150°C	150°C ~ 200°C	217°C	260±5°C	Peak Temp. ~ 150°C
標準時間 Time spec.	—	60 ~ 180 sec	60 ~ 150sec	20 ~ 40 sec	—
實際時間 Time result	—	75 ~ 100 sec	90 ~ 120sec	20 ~ 35 sec	—

NOTE :

1. Re-flow possible times : within 2 times
2. Nitrogen adopted is recommended while in re-flow



# MHCH252010A Series Specification

## 10 Test Data for Pre-production Samples

Chilisin P/N: MHCH252010A-1R0M-Q8											
Measured Item	L0 (uH)	L1 (uH)Max.	RDC (mΩ)Max.	A m/m	B m/m	C m/m	D m/m				
Spec	Customer	1±20%									
	Suggest		L0*0.7	53(45typ)	2.5±0.3	2.0±0.3	1.0 Max.	0.6±0.3			
Test Freq.	Isat=0A 2MHz 0.2V	Isat=3.7A 2MHz 0.2V									
1	0.95	0.74	44.3	2.63	2.2	0.96	0.5				
2	1.03	0.81	47.3	2.64	2.19	0.95	0.51				
3	1.02	0.81	46.8	2.63	2.2	0.96	0.51				
4	1.11	0.88	43.5	2.62	2.19	0.96	0.5				
5	1.06	0.83	45.5	2.64	2.2	0.97	0.5				
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
$\bar{X}$	1.034	0.814	45.48	2.632	2.196	0.96	0.504				
R	0.16	0.14	3.8	0.02	0.01	0.02	0.01				
Customer											
Sample											

Test Instrument

L : Agilent E4991A/HP4287A+16197A  
 RDC : CHEN HWA 502BC / HP4338B  
 Isat : Agilent E4980A+HP42841A  
 Irms : Agilent 6641 SYSTEM DC POWER SUPPLY

Appearance and Dimensions:

SPEC : Refer to Item 6  
 Test Method : Visual Inspection and Measured with Slide Calipers.

Test Conditions:

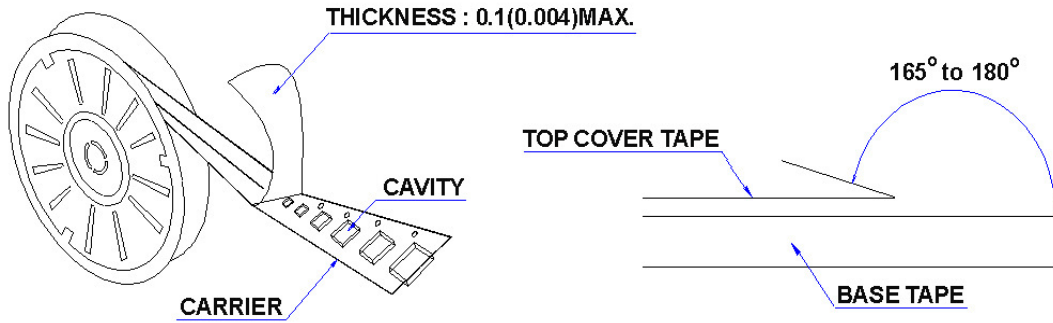
	Unless Otherwise Specified	In Case of Doubt
Temperature	Ordinary Temperature (15 to 35°C)	20 ± 2 °C
Humidity	Ordinary Humidity (25 to 85 %RH)	60 to 70 %RH

# MHCH252010A Series Specification

## 11 Packaging:

### 11.1 Packaging -Cover Tape

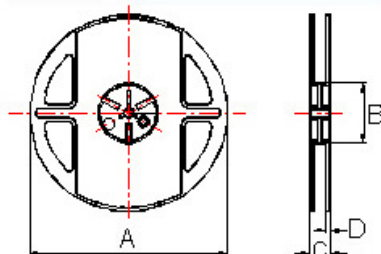
The force for tearing off cover tape is 10 to 100 grams in the arrow direction.



### 11.2 Packaging Quantity

TYPE	BULK	PCS/REEL
MHCH252010A	✓	3000

### 11.3 Reel Dimensions



Dimensions in mm

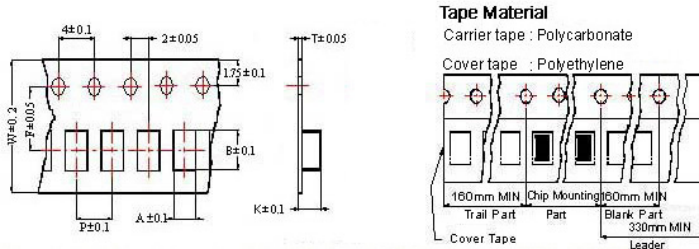
TYPE	A	B	C	D
MHCH252010A	178	60	12	1.5



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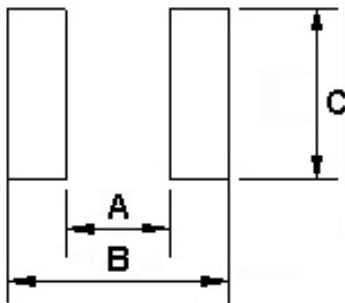
## 11 Packaging:

### 11.4 Tape Dimensions in mm



TYPE	A	B	T	W	P	F	K
MHCH252010A	2.25	2.8	0.22	8	4	3.5	1.35

## 12 Recommended Land Pattern:



Dimensions in mm

TYPE	A	B	C
MHCH252010A	1.2	2.8	2.0

## 13 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. After manufacturing process, there might be slight irregular shape on the edge of the products, and it's a normal phenomenon that can be neglectable.

单击下面可查看定价，库存，交付和生命周期等信息

[>>CHILISIN\(奇力新\)](#)