



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

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

## SPECIFICATION FOR APPROVAL

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

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

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

Quantity : 0 Pcs. Date : 2017/04/18

Chilisin P/N : MHCH201610A-Series-Q8

| SPECIFICATION<br>ACCEPTED BY: |  |
|-------------------------------|--|
| COMPONENT<br>ENGINEER         |  |
| ELECTRICAL<br>ENGINEER        |  |
| MECHANICAL<br>ENGINEER        |  |
| APPROVED                      |  |
| REJECTED                      |  |

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Drawn by  
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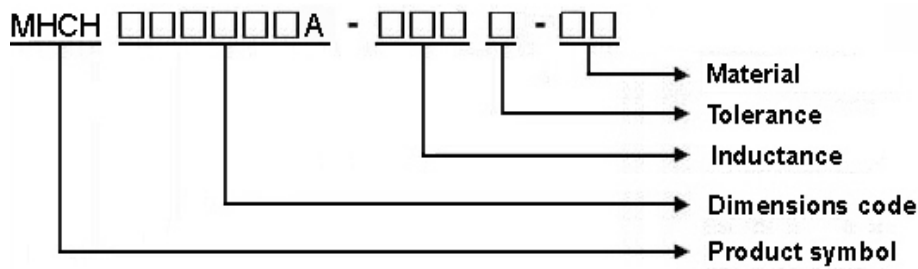
Checked by  
**溫美玲 ling**

Approved by  
**陳瑞揚 ryan.chen**

# MHCH201610A 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:**

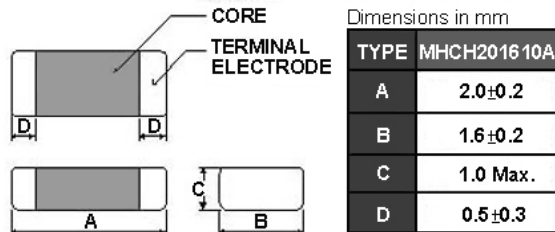
No Marking

**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     |

## MHCH201610A Series Specification

### 6 Configuration and Dimensions:



### 7 Electrical Characteristics:

| Part No.            | Inductance (uH) | Tolerance (±%) | Test Freq. | I <sub>rms</sub> (A) Max.(Typ) | I <sub>sat</sub> (A) Max.(Typ) | RDC(mΩ) Max.(Typ) | SRF(MHz) Typ. |
|---------------------|-----------------|----------------|------------|--------------------------------|--------------------------------|-------------------|---------------|
| MHCH201610A-R24M-Q8 | 0.24            | 20             | 2MHz,0.2V  | 3.9(4.8)                       | 5.6(7.0)                       | 27(21)            | 180           |
| MHCH201610A-R33M-Q8 | 0.33            | 20             | 2MHz,0.2V  | 4.7(5.1)                       | 5.3(6.0)                       | 23(17.5)          | 124           |
| MHCH201610A-R47M-Q8 | 0.47            | 20             | 2MHz,0.2V  | 3.5(4.2)                       | 3.9(4.8)                       | 42(33)            | 100           |
| MHCH201610A-R68M-Q8 | 0.68            | 20             | 2MHz,0.2V  | 2.7(3.4)                       | 3.2(4.0)                       | 56(43)            | 73            |
| MHCH201610A-1R0M-Q8 | 1               | 20             | 2MHz,0.2V  | 2.5(3.1)                       | 2.9(3.6)                       | 65(53)            | 67            |
| MHCH201610A-1R5M-Q8 | 1.5             | 20             | 2MHz,0.2V  | 2.3(2.7)                       | 2.5(2.8)                       | 85(75)            | 51            |
| MHCH201610A-2R2M-Q8 | 2.2             | 20             | 2MHz,0.2V  | 1.8(2.2)                       | 2.4(2.7)                       | 135(112)          | 37            |

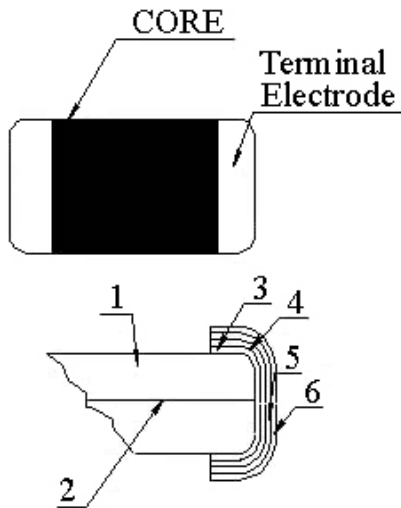
#### NOTE:

1. Operating temperature range - 40°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. All test data is referenced to 25°C ambient
5. Absolute maximum voltage 25VDC

## MHCH201610A Series Specification

### 8 MHCH201610A Series

#### 8.1 Construction:



#### 8.2 Material List:

| No | Part             | Material     |
|----|------------------|--------------|
| 1  | Core             | Metal Powder |
| 2  | Wire             | Copper wire  |
| 3  | Sputter/Plating  | Cu           |
| 4  | Silver Electrode | Ag           |
| 5  | Plating          | Ni           |
| 6  | Plating          | Sn           |

# MHCH201610A Series Specification

## 9 Packaging:

### 9.1 Packaging -Cover Tape

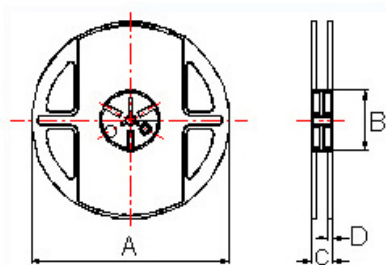
The force for tearing off cover tape is 10 to 100 grams in the arrow direction.



### 9.2 Packaging Quantity

| TYPE        | PCS/REEL |
|-------------|----------|
| MHCH201610A | 3000     |

### 9.3 Reel Dimensions



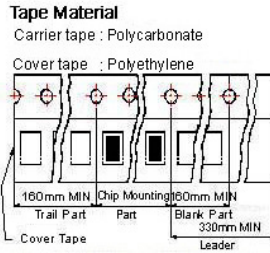
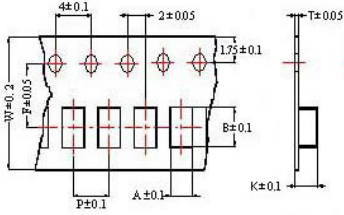
Dimensions in mm

| TYPE        | A   | B  | C  | D   |
|-------------|-----|----|----|-----|
| MHCH201610A | 178 | 60 | 12 | 1.5 |

# MHCH201610A Series Specification

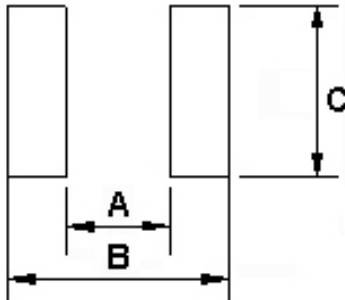
## 9 Packaging:

### 9.4 Tape Dimensions in mm



| TYPE        | A   | B   | T    | W | P | F   | K    |
|-------------|-----|-----|------|---|---|-----|------|
| MHCH201610A | 1.8 | 2.2 | 0.22 | 8 | 4 | 3.5 | 1.15 |

## 10 Recommended Land Pattern:



Dimensions in mm

| TYPE        | A   | B   | C   |
|-------------|-----|-----|-----|
| MHCH201610A | 0.7 | 2.3 | 1.8 |

## 11 Note:

- Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
- Do not knock nor drop.
- 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.
- Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
- After manufacturing process, there might be slight irregular shape on the edge of the products, and it's a normal phenomenon that can be neglected
- The moisture sensitivity level (MSL) of products is classified as level 1.