

# SPECIFICATION FOR APPROVAL

## 承 認 書

**CUSTOMER**

客戶名稱：

**NUMBER**

編號： Y-20070106

**DESCRIPTION**

品 名：SMD POWER INDUCTORS

**QUANTITY**

數量：20PCS

**PART NO.**

型 號：CR6045A - 4R7M

**DATE**

日期：2020-07-01

**CUSTOMER PART NO.**

客戶料號：

**NOTE**

注解：

**APPROVAL SIGNATURE**

客戶承認簽章

|                    |                   |                 |
|--------------------|-------------------|-----------------|
| Approved By<br>核 准 | Checked By<br>审 查 | Drawn By<br>制 作 |
| 李庆辉                | 刘志坚               | 劳水花             |

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## SPECIFICATIONS

TYPE:

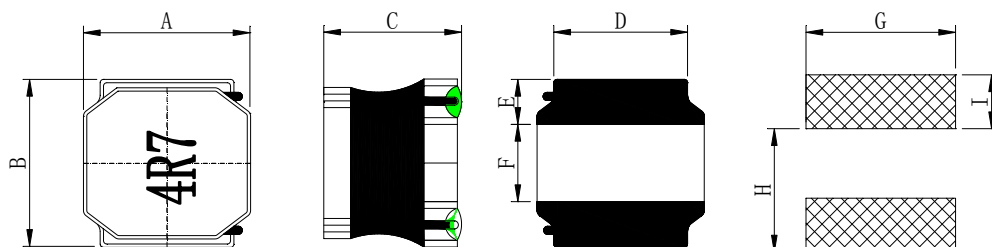
**CR6045A - 4R7M**

### 1. Scope

This specification apply for CR6045A of power inductors

### 2. Appearance

#### 2-1.Dimensions(mm)



|   |                   |
|---|-------------------|
| A | $6.0 \pm 0.3$ mm  |
| B | $6.0 \pm 0.3$ mm  |
| C | 4.5 mmMax         |
| D | $4.9 \pm 0.3$ mm  |
| E | $1.65 \pm 0.3$ mm |
| F | $2.7 \pm 0.3$ mm  |
| G | 1.7 mm            |
| H | 2.8 mm            |
| I | 5.7 mm            |

\* Dimension without tolerance is approx.

### 3. Coils Specification

#### 3-1. Connection (Bottom View)



“S” is winding start

#### 3-2. Turns and Wire

|          |                |
|----------|----------------|
| Terminal | S-F            |
| Turns    | 10.5 Ts        |
| Wire     | 0.36mm G1 P180 |

\* Winding Turns are approx.

**LEAD-FREE**

**RoHS**

Compliance

Note :

Spec. No.

Y-20070106

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|-----------------------|
| TYPE:                 |
| <b>CR6045A - 4R7M</b> |

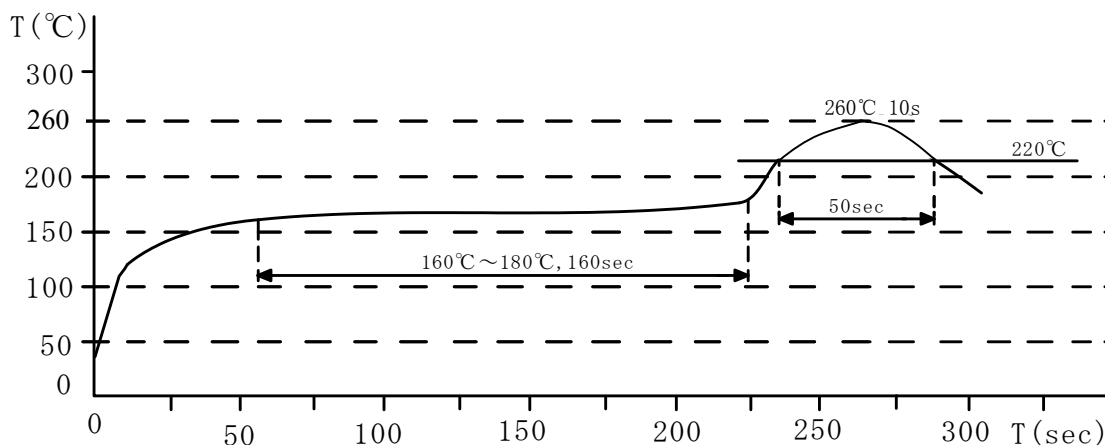
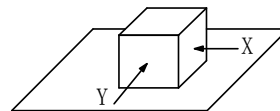
## 3-3. Electronical characteristics

| Item       | Specifications               | Measuring Conditions | Measuring Instrument |
|------------|------------------------------|----------------------|----------------------|
| Inductance | 4.7 $\mu$ H $\pm$ 20% Within | 100KHz/0.25V         | CH1062               |
| D.C.R      | 24m $\Omega$ $\pm$ 30%       | 25 $^{\circ}$ C      | HIOKI 3540           |
| Isat ※1    | 4.5A                         | 100KHz/0.25V         | CH1062&Chroma1320    |
| Irise ※2   | 3.0A                         | 25 $^{\circ}$ C      | 6377&6220            |

- ※ 1.This indicates the value of current when the inductance is 30% lower than its initial value at D.C superposition  
 2. D.C current when temperature rise  $\Delta T=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ )

## 4. General Characteristics

- 4-1. Storage Temperature range :  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$   
 4-2.Operating temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$  (Including coil's self temperature rise)  
 4-3.External appearance : No external defects can be found in the visual inspection.  
 4-4.Electrode strength : No electrode detachment should be found when the device is pushed in two directions of X and Y with the force of 10.0N for  $10\pm 2$  seconds after soldering between copper plate and the electrodes.  
 (Refer to figure at right)  
 4-5.Vibration test : Inductance deviation is within  $\pm 10\%$  after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down, right and left. The frequency is  $10\sim 55\sim 10\text{Hz}$  and the amplitude of 1 minute cycle is 1.5mm PP.  
 4-6.Recommended reflow condition :



|        |                                |
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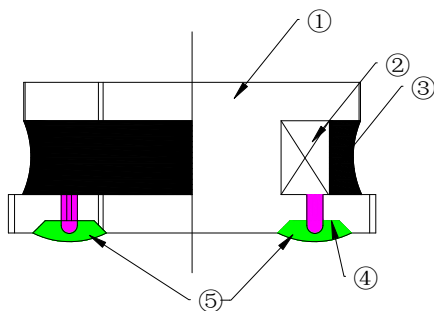
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**CR6045A - 4R7M**

4-7.Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^\circ\text{C}$ , and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

## 5. Construction and materials



| No. | Part name          | Material  | Ceaiya P/N |
|-----|--------------------|---|------------|
| ①   | Drum Core          | Ni-Zn Ferrite Core  | CY/DY      |
| ②   | Wire               | Polyurethane enameled copper wire   | YLSL       |
| ③   | Adhesive           | Epoxy Resin Magnetic Powder   |            |
| ④   | Plating Electrodes | Plating: Ag 3-7 $\mu\text{m}$<br>Ni 1-3 $\mu\text{m}$<br>Sn 3-7 $\mu\text{m}$ |            |
| ⑤   | Outer Electrodes   | Top surface solder coating Sn99%、Ag0.3%、Cu0.7%                                | YX         |

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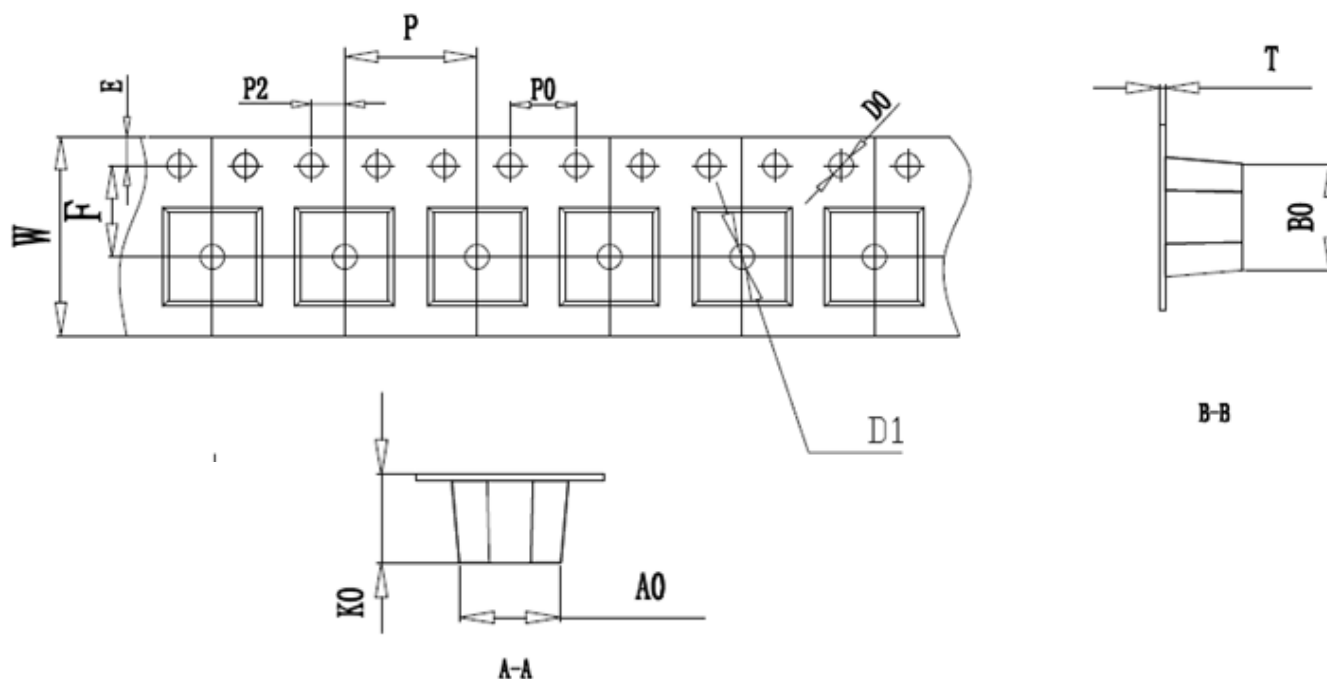
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# SPECIFICATIONS

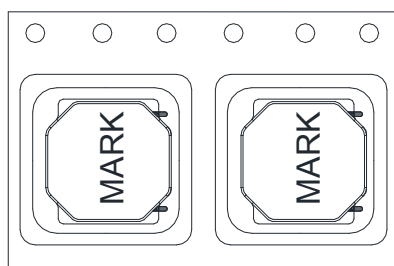
TYPE:

**CR6045A - 4R7M**

## 6. TAPE DIMENSIONS:



| ITEM | W     | A0   | B0   | K0   | P1   | F    | E    | D0   | P0   | P2   | T     |
|------|-------|------|------|------|------|------|------|------|------|------|-------|
| DIM  | 12.00 | 6.3  | 6.3  | 4.7  | 8.00 | 5.50 | 1.75 | 1.50 | 4.00 | 2.00 | 0.40  |
| TOLE | ±0.3  | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | +0.1 | ±0.1 | ±0.1 | ±0.05 |



Note :

Spec. No.

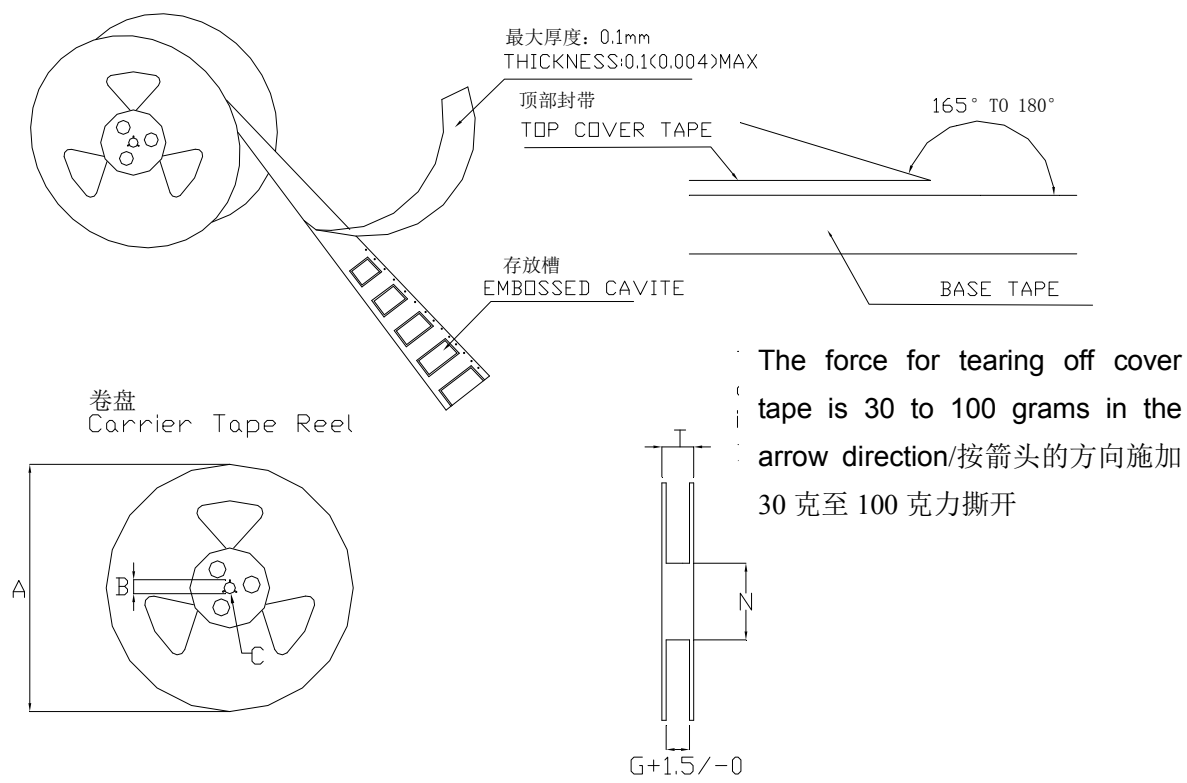
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SPECIFICATIONS

TYPE:  
  
**CR6045A - 4R7M**

7. TAPE REEL DIMENSIONS:



单位：毫米

| Type | A   | B      | C      | G    | N   | T    |
|------|-----|--------|--------|------|-----|------|
| 12mm | 330 | 21±0.8 | 13±0.4 | 12.0 | 100 | 16.4 |

PACKAGING QUANTITY :  
1500 PCS /REEL

|        |                                |
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