

# SPECIFICATION FOR APPROVAL

## 承 認 書

**CUSTOMER**

客戶名稱：

**NUMBER**

編號： Y-16063001

**DESCRIPTION**

品 名：SMD POWER INDUCTORS

**QUANTITY**

數量：10PCS

**PART NO.**

型 號： CR6045 - 331M

**DATE**

日期： 2022-08-12

**CUSTOMER PART NO.**

客戶料號：

**NOTE**

注解：

**APPROVAL SIGNATURE**

客戶承認簽章

Approved By 核 准	Checked By 审 查	Drawn By 制 作
李庆辉	刘志坚	劳水花

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## SPECIFICATIONS

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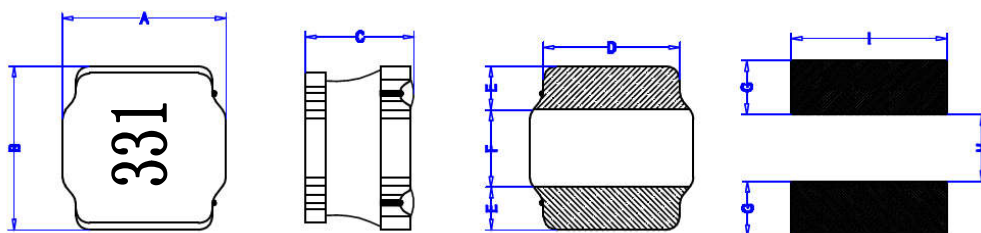
**CR6045 – 331M**

### 1. Scope

This specification apply for CR6045 of power inductors

### 2. Appearance

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



A	$6.0 \pm 0.3$ mm
B	$6.0 \pm 0.3$ mm
C	$4.0 \pm 0.5$ mm
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	89.5 Ts
Wire	0.13mm G1 P180

\* Winding Turns are approx.

**LEAD-FREE**

**RoHS**

Compliance

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### 3-3. Electronical characteristics

Part No.	Inductance ( $\mu$ H)	DCR( $\Omega$ )		Isat1 (A)		Irms2 (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
CR6045-331M	330 $\pm$ 20%	1.851	1.500	0.57	0.63	0.50	0.60

※ L test condition: 100KHz/1V at 20°C ambient;

※ Rated current: Isat or Irms, whichever is smaller;

※ Isat1: direct current at which the inductance drops approximate 30% from its value without current.

Irms2: direct current when the temperature of the product rise ( $\Delta T=40^\circ\text{C}$ ) from 20°C ambient.

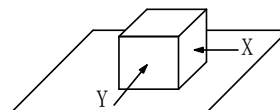
## 4. General Characteristics

4-1. Storage Temperature range :  $-40^\circ\text{C} \sim +100^\circ\text{C}$

4-2. Operating temperature range:  $-40^\circ\text{C} \sim +125^\circ\text{C}$  (Including coil's self temperature rise)

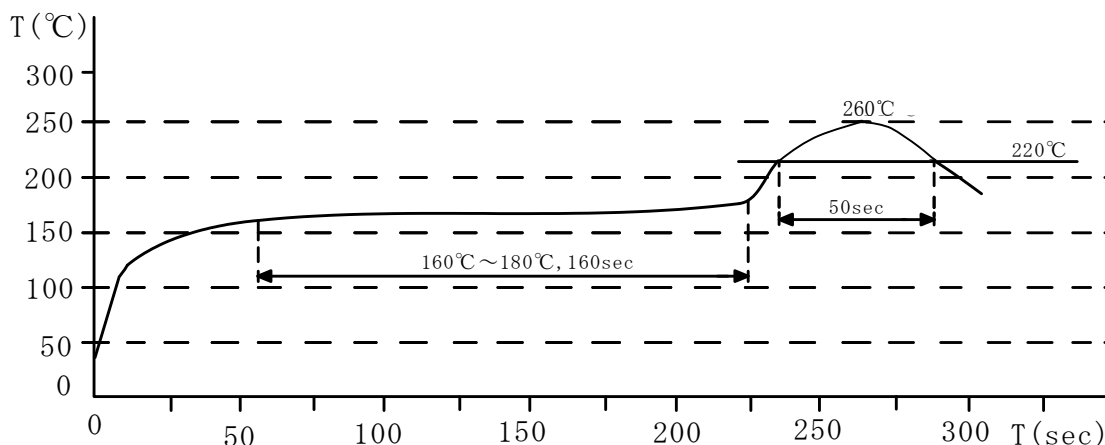
4-3. External appearance : No external defects can be found in the visual inspection.

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  $\pm 10.0\%$  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 $\sim$ 10Hz and the amplitude of 1 minute cycle is 1.5mm PP.

4-6. Recommended reflow condition :



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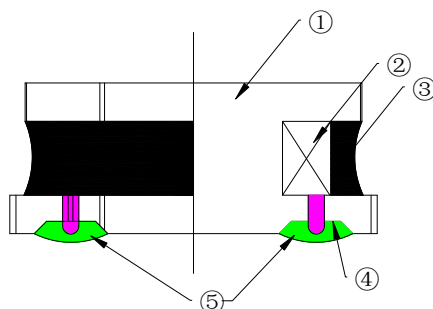
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4-7.Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^\circ\text{C}$ , and 1 hour storage under room ambient conditions 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/TW
②	Wire	Polyurethane enameled copper wire	YLSL
③	Adhesive	Epoxy Resin Magnetic Powder	
④	Plating Electrodes	Plating: Ag 10-20 $\mu\text{m}$ Ni 1-3 $\mu\text{m}$ Sn 3-7 $\mu\text{m}$	
⑤	Outer Electrodes	Top surface solder coating Sn99%、Ag0.3%、Cu0.7%	YX

Note :

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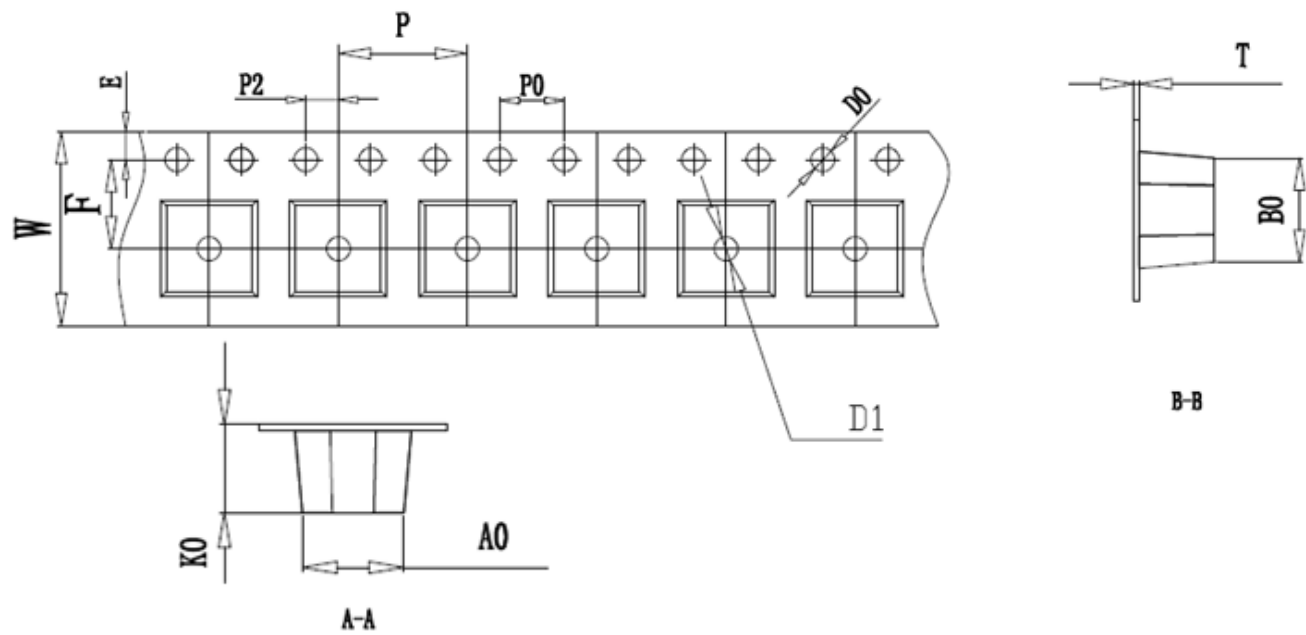
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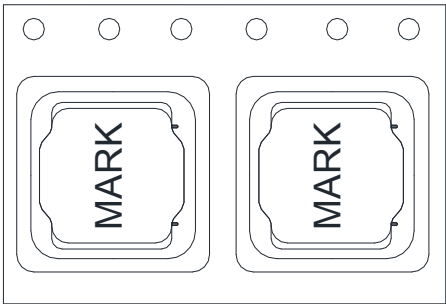
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6. TAPE DIMENSIONS:



ITEM	W	A0	B0	K0	P	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



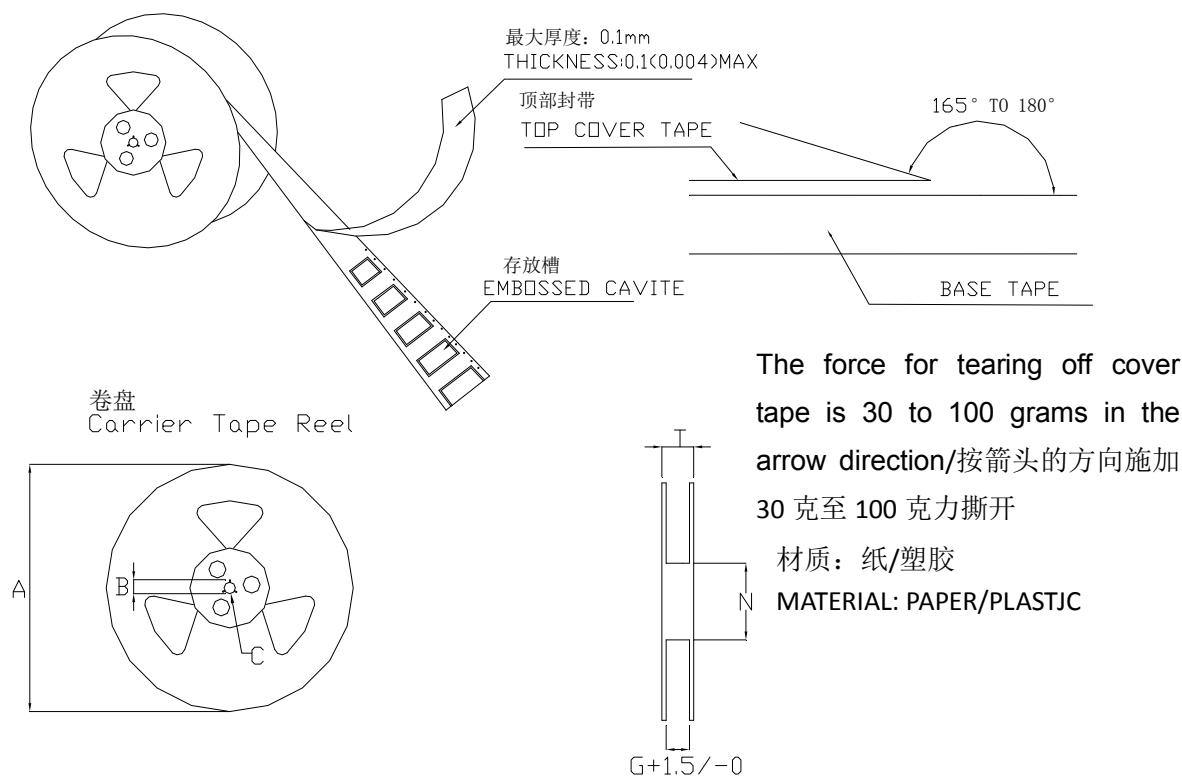
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7. TAPE REEL DIMENSIONS:



单位：毫米

Type	A	B	C	G	N	T
12mm	330	21±0.8	13±0.4	12.4	100	16.4

PACKAGING QUANTITY :  
1500 PCS /REEL

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