

SPECIFICATION FOR APPROVAL

承 認 書

CUSTOMER

客戶名稱：

NUMBER

編號: Y-23032101

DESCRIPTION

型 號： CR5040 - 371K

QUANTITY

數量： 20PCS

PART NO.

品 名： SMD POWER INDUCTORS

DATE

日期： 2023-03-21

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

TYPE:

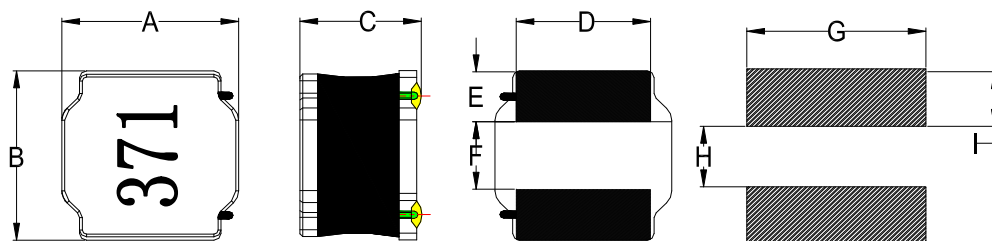
CR5040 - 371K

1. Scope

This specification apply for CR5040 of power inductors

2. Appearance

2-1.Dimensions(mm)

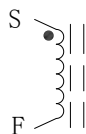


| | |
|---|-------------------------|
| A | $5.0 \pm 0.2\text{mm}$ |
| B | $5.0 \pm 0.2\text{mm}$ |
| C | 4.0mm(Max) |
| D | $4.0 \pm 0.3\text{mm}$ |
| E | $1.25 \pm 0.3\text{mm}$ |
| F | $2.5 \pm 0.3\text{mm}$ |
| G | 4.2mm |
| H | 2.3mm |
| I | 1.4mm |

* 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 | 116.5 Ts |
| Wire | $\phi 0.10\text{mm}$ G1 P180 |

* Winding Turns are approx.

LEAD-FREE



Note :

1. 线包涂胶。
2. 印黑色字体。

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3-3. Electronical characteristics

| Item | Specifications | Measuring Conditions | Measuring Instrument |
|------------|------------------------|----------------------|----------------------|
| Inductance | 370uH \pm 10% Within | 100KHz/0.25V | CH1062/HIOKI3532 |
| D.C.R | 2.7 Ω \pm 30% | 25°C | HIOKI3540 |
| Isat ※1 | 0.40A | 100KHz/0.25V | Microtest 6377&6220 |
| Irise ※2 | 0.35A | 25°C | Microtest 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 $\Delta T=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$)

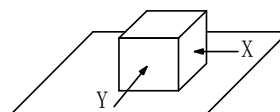
4. General Characteristics

4-1. Storage Temperature range : $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

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

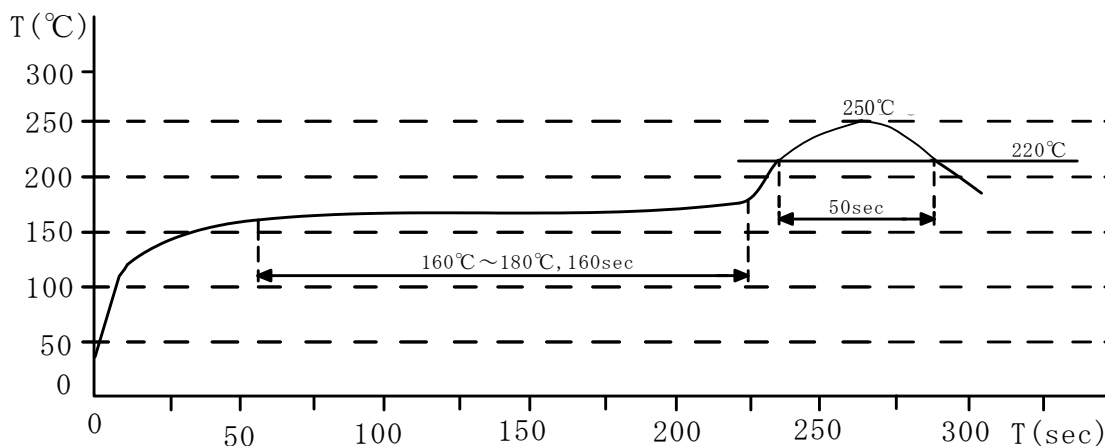
4-3. External appearance : No external defects can be found in the visual inspection.

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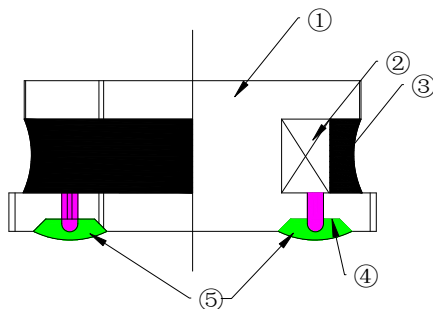
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4-7.Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ and temperature of $60 \pm 2^\circ\text{C}$, and 1 hour storage under room ambient conditions after the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

5. Construction and materials



| No. | Part name | Material | 供应商 |
|-----|--------------------|---|-------|
| ① | Drum Core | Ni-Zn Ferrite Core | CY/MT |
| ② | Wire | Polyurethane enameled copper wire | YLSL |
| ③ | Adhesive | Epoxy Resin Magnetic Powder | DZ/JH |
| ④ | Plating Electrodes | Plating: Ag 3-7 μm Ni 1-3 μm Sn 3-7 μm | |
| ⑤ | Outer Electrodes | Top surface solder coating Sn99%、Ag0.3%、Cu0.7% | YX |

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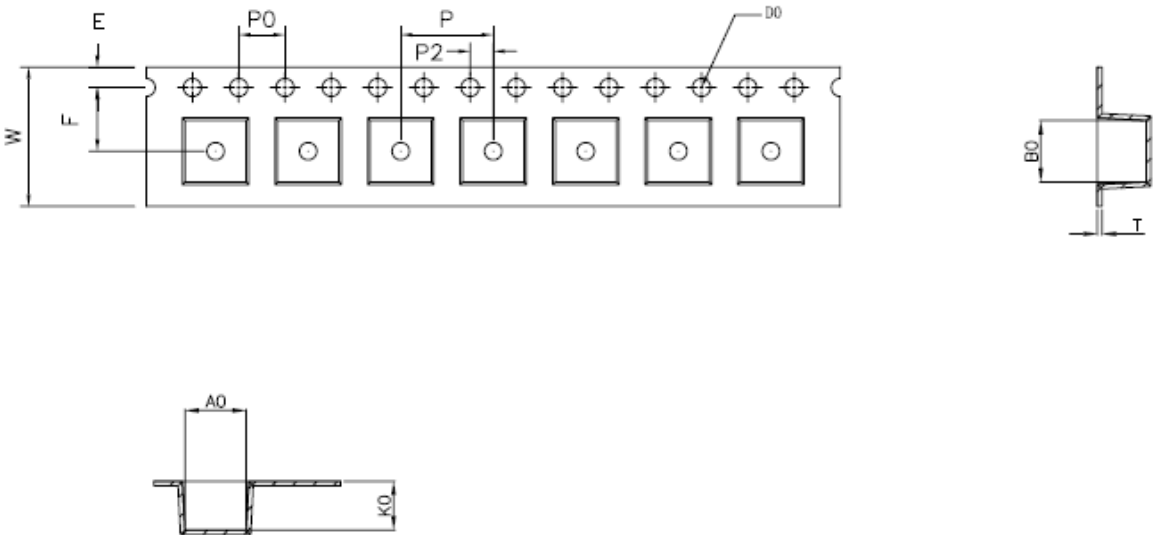
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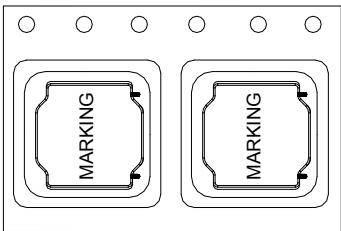
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6.Package Specification



| ITEM | W | A0 | B0 | K0 | P | F | E | D0 | D1 | P0 | P2 | T |
|------|-------|------|------|-------|------|-------|------|------|------|------|------|-------|
| DIM | 12.00 | 5.3 | 5.3 | 4.3 | 8.00 | 5.50 | 1.75 | 1.50 | 1.50 | 4.00 | 2.00 | 0.4 |
| TOLE | ±0.3 | ±0.1 | ±0.1 | ±0.15 | ±0.1 | ±0.15 | ±0.1 | +0.1 | +0.1 | ±0.1 | ±0.1 | ±0.05 |



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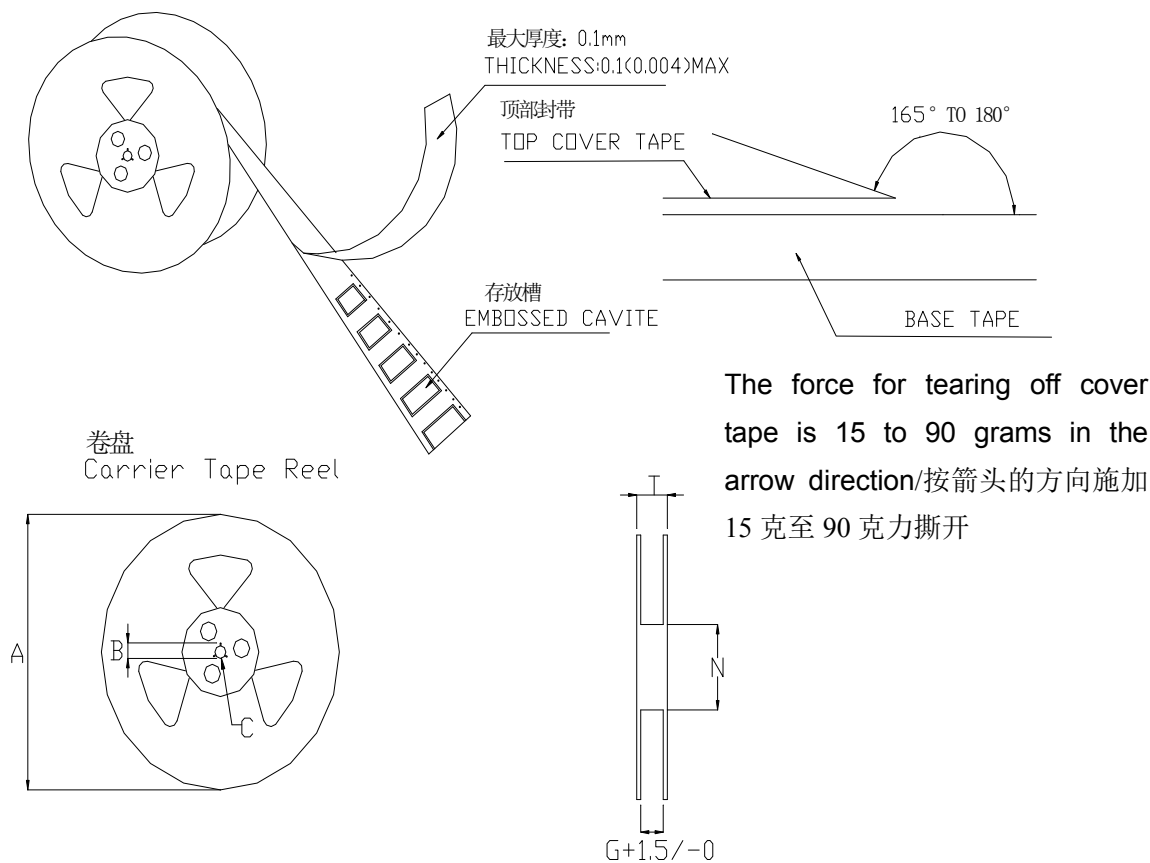
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7. CARRIER REEL DIMENSIONS:



Unit: mm

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

8. PACKAGE SPECIFICATION :

1.5KPCS/Reel 4.5KPCS/Inner Box 13.5KPCS/Outer Box

| | |
|--------|--------------------------------|
| Note : | Spec. No. Y-23032101 6/6 |
|--------|--------------------------------|