

SPECIFICATION FOR APPROVAL

承認書

CUSTOMER

客戶名稱：

NUMBER

編號：Y-18020603

DESCRIPTION

型號：CR8040 - 821M

QUANTITY

數量：20PCS

PART NO.

品名：SMD POWER INDUCTORS

DATE

日期：2024.7.24

CUSTOMER PART NO.

客戶料號：

NOTE

注解：

APPROVAL SIGNATURE

客戶承認簽章

| Approved By 核准 | Checked By 審查 | Drawn By 制作 |
|-------------------|------------------|----------------|
| 李庆辉 | 苏高峰 | 劳水花 |

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| | | |
|-----------|--|----------------------------|
| CUSTOMER: | SPECIFICATIONS (R e v i s i o n s) | TYPE CR8040-821M |
|-----------|--|----------------------------|

History of change

| Rev. | Effective Date | Changed Contents | Change reasons | Approved By |
|------|----------------|------------------|----------------|-------------|
| A0 | 2018-2-6 | New release | / | |

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SPECIFICATIONS

TYPE:

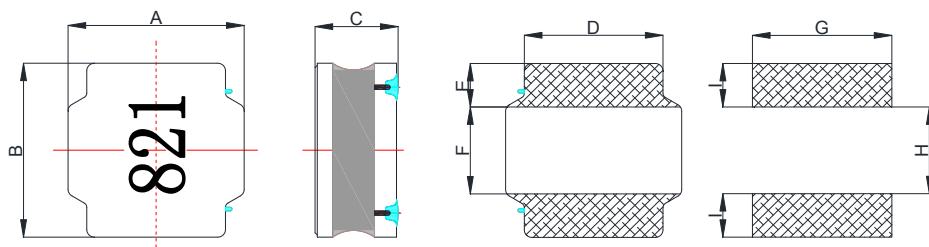
CR8040 - 821M

1. Scope

This specification apply for CR8040 of power inductors

2. Appearance

2-1.Dimensions(mm)

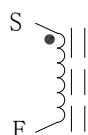


| | |
|---|-------------|
| A | 8.0mm ± 0.3 |
| B | 8.0mm ± 0.3 |
| C | 4.2mmMax |
| D | 6.3±0.3mm |
| E | 2.0±0.3mm |
| F | 4.0±0.3mm |
| G | 7.5mm |
| H | 3.8mm |
| I | 2.2mm |

* 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 | 118.5 Ts |
| Wire | 0.13mm G1 P180 |

* Winding Turns are approx.



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3-3. Electronical characteristics

| Item | Specifications | Measuring Conditions | Measuring Instrument |
|--------------------|----------------------------------|----------------------|----------------------|
| Inductance | $820\mu\text{H} \pm 20\%$ Within | 100KHz/0.25V | CH1062 |
| D.C.R | $2.5\Omega \pm 30\%$ | 25°C | CH502BC |
| Isat $\ddagger 1$ | 0.5A | 100KHz/0.25V | CH1062&Chroma1320 |
| Irise $\ddagger 2$ | 0.32A | 25°C | 6377&6220 |

\ddagger This indicates the value of current when the inductance is 30% lower than its initial value at D.C superposition or D.C current when temperature rise $\Delta T=40^\circ\text{C}$

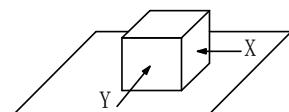
4. General Characteristics

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)

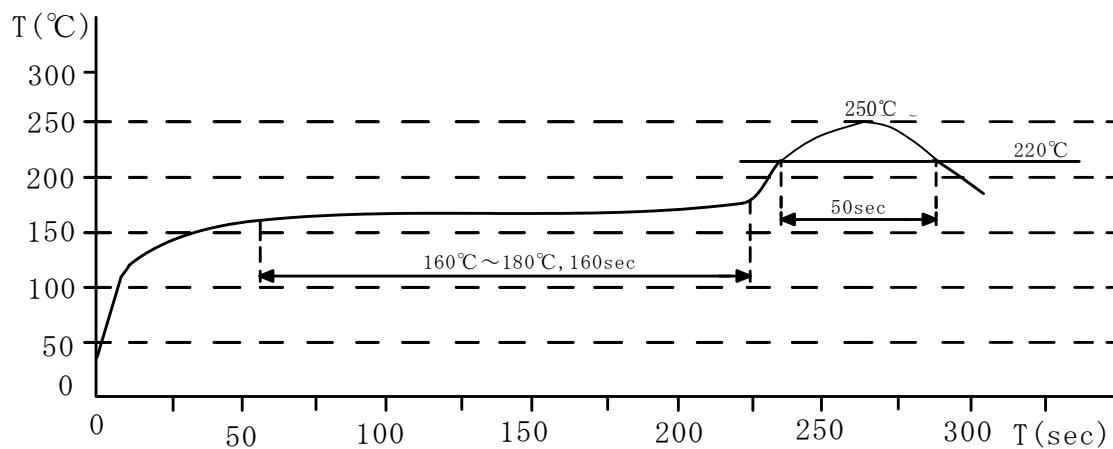
4-3. External appearance : No external defects can be found in the visual inspection.

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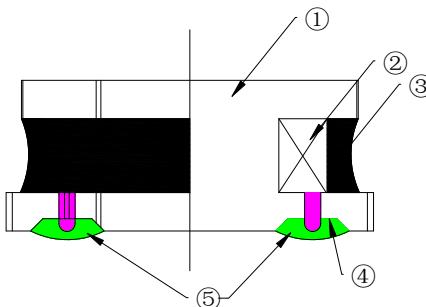
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4-7.Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ and temperature of $60 \pm 2^\circ\text{C}$, and 1 hour storage under room ambient conditions after the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

5. Construction and materials



| No. | Part name | Material | Manufacturer |
|-----|--------------------|---|--------------|
| ① | Drum Core | Ni-Zn Ferrite Core | CY/FY |
| 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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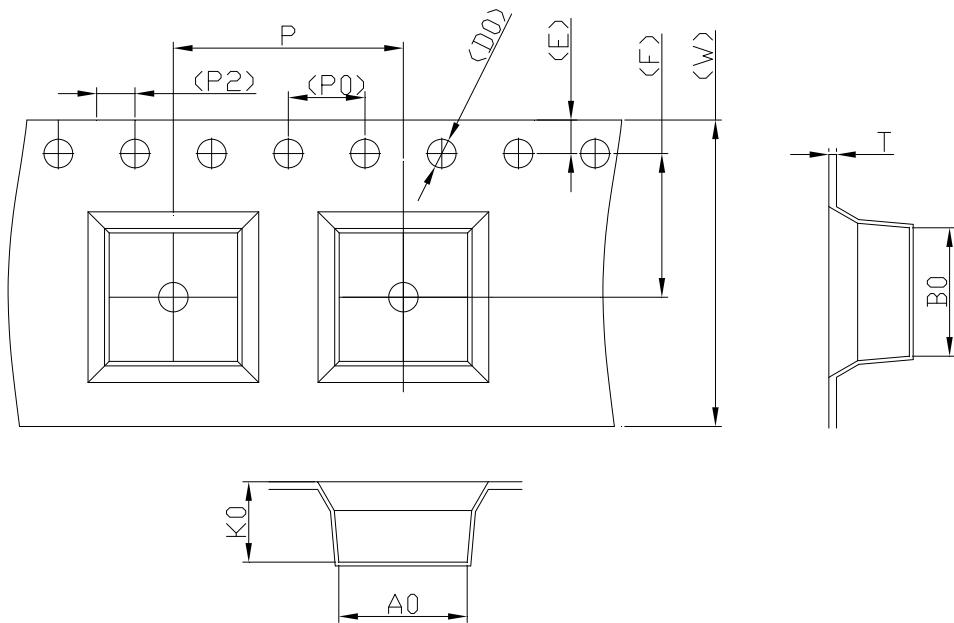
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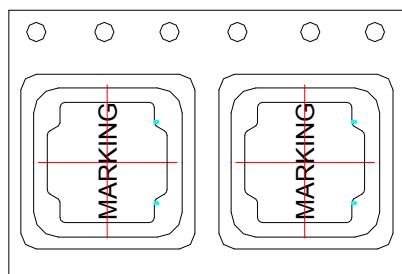
TYPE:

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6. TAPE DIMENSIONS:



| ITEM | W | A0 | B0 | K0 | P | F | E | D0 | D1 | P0 | P2 | T |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|-----------|-----------|------------|
| DIM | 16.00 | 8.40 | 8.40 | 4.2 | 12.00 | 7.50 | 1.75 | 1.50 | 1.50 | 4.00 | 2.00 | 0.35 |
| TOLE | ± 0.3 | ± 0.1 | $+0.1$ | $+0.1$ | ± 0.1 | ± 0.1 | ± 0.05 |



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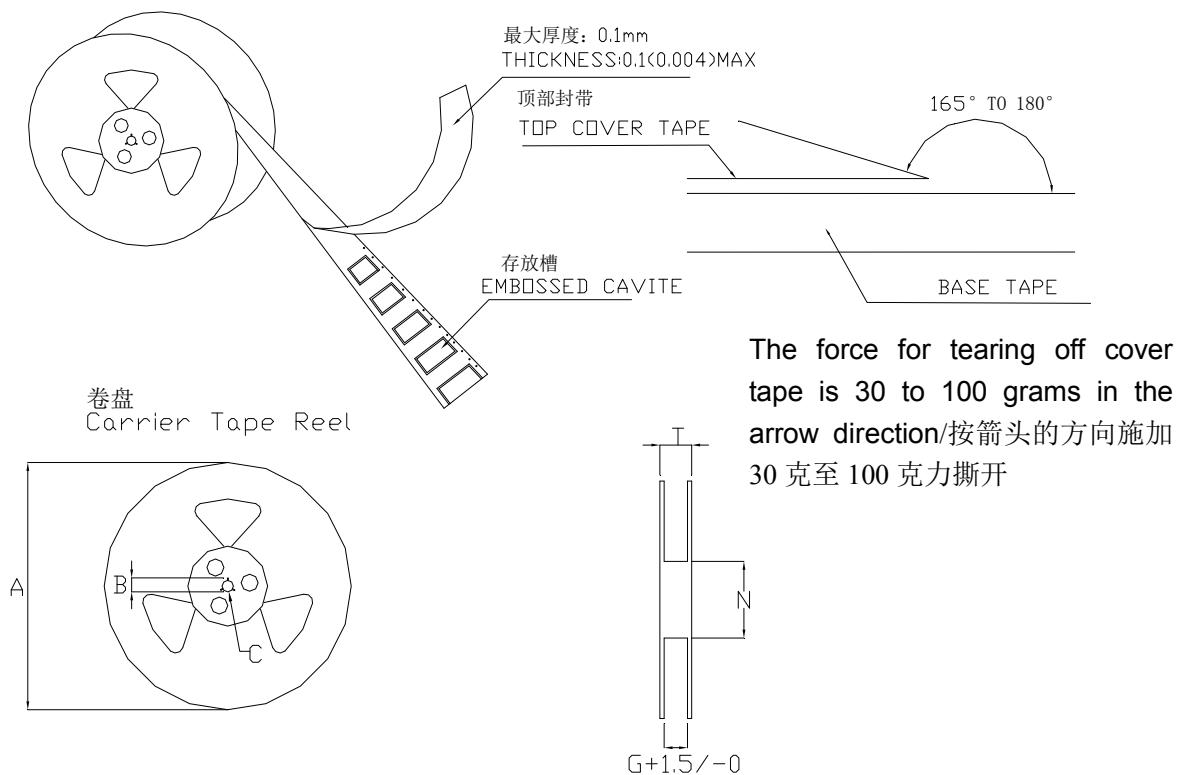
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7. TAPE REEL DIMENSIONS:



单位: 毫米

| Type | A | B | C | G | N | T |
|------|-----|--------|--------|------|-----|------|
| 16mm | 330 | 21±0.8 | 13±0.4 | 16.4 | 100 | 20.4 |

8. PACKAGE SPECIFICATION :

1000PCS/Reel 3000PCS/Inner Box 9000PCS/Outer Box

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