

## Specification Sheet for Approved

|                    |               |
|--------------------|---------------|
| Customer Name:     |               |
| Customer Part No.: |               |
| Ceaiya Part No:    | CR4030 Series |
| Spec No:           | L166          |

### 【For Customer Approval Only】

If you Approval, Please Stamp

### 【RoHS Compliant Parts】

| Approved By | Checked By | Prepared By |
|-------------|------------|-------------|
| 李庆辉         | 刘志坚        | 劳水花         |

**Shenzhen Ceaiya Electronics Co., Ltd.**

地址 1: 深圳市龙华区观湖街道鹭湖社区观盛二路 5 号捷顺科技中心 B706

地址 2: 广东省东莞清溪镇青滨东路 105 号力合紫荆智能制造中心 10 栋

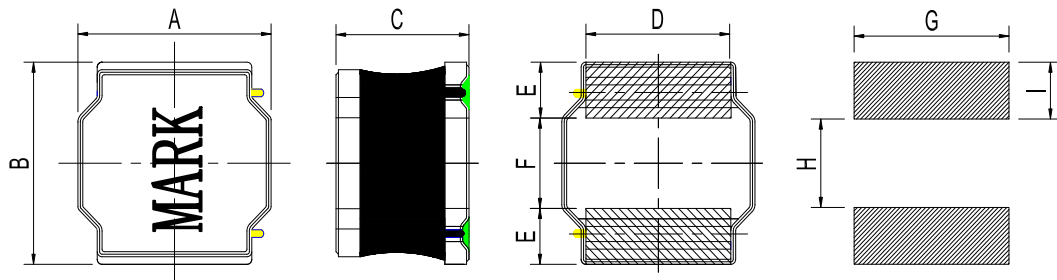
Http://www.szceaiya.com

Tel: 0769-89135516

Fax: 0769-89135519



## 1. Shape and Dimension (Unit:mm)



注：喷码尺寸长  $2.5 \pm 0.5$ mm, 宽  $2.0 \pm 0.5$ mm

| A             | B             | C      | D             | E             | F             | G       | H       | I       |
|---------------|---------------|--------|---------------|---------------|---------------|---------|---------|---------|
| $4.0 \pm 0.2$ | $4.0 \pm 0.2$ | 3.0Max | $3.3 \pm 0.3$ | $1.0 \pm 0.3$ | $2.0 \pm 0.3$ | 3.7 Ref | 1.9 Ref | 1.1 Ref |

## 2. Electronic Characteristics List

| Part Number   | Inductance (uH) | Tolerance ( $\pm\%$ ) | DCR(m $\Omega$ ) $\pm 30\%$ | Isat (A) | Irise (A) | Test Condition | Marking |
|---------------|-----------------|-----------------------|-----------------------------|----------|-----------|----------------|---------|
| CR4030-R47N   | 0.47            | 30                    | 11                          | 7.50     | 4.00      | 100kHz /0.25V  | R47     |
| CR4030-R56N   | 0.56            | 30                    | 14                          | 6.00     | 4.00      | 100kHz /0.25V  | R56     |
| CR4030-1R0N   | 1.0             | 30                    | 15                          | 5.90     | 3.40      | 100kHz /0.25V  | 1R0     |
| CR4030-1R5N/M | 1.5             | 30,20                 | 25                          | 4.85     | 3.30      | 100kHz /0.25V  | 1R5     |
| CR4030-1R8N   | 1.8             | 30                    | 30                          | 4.25     | 3.20      | 100kHz /0.25V  | 1R8     |
| CR4030-2R2M   | 2.2             | 20                    | 35                          | 4.10     | 2.95      | 100kHz /0.25V  | 2R2     |
| CR4030-3R3M   | 3.3             | 20                    | 40                          | 3.30     | 2.40      | 100kHz /0.25V  | 3R3     |
| CR4030-3R6M   | 3.6             | 20                    | 53                          | 3.10     | 2.30      | 100kHz /0.25V  | 3R6     |
| CR4030-3R9M   | 3.9             | 20                    | 57                          | 3.00     | 2.10      | 100kHz /0.25V  | 3R9     |
| CR4030-4R7M   | 4.7             | 20                    | 60                          | 2.90     | 2.00      | 100kHz /0.25V  | 4R7     |
| CR4030-5R6M   | 5.6             | 20                    | 70                          | 2.75     | 1.95      | 100kHz /0.25V  | 5R6     |
| CR4030-6R8M   | 6.8             | 20                    | 75                          | 2.60     | 1.70      | 100kHz /0.25V  | 6R8     |
| CR4030-7R5M   | 7.5             | 20                    | 90                          | 2.20     | 1.65      | 100kHz /0.25V  | 7R5     |
| CR4030-8R2M   | 8.2             | 20                    | 100                         | 2.10     | 1.60      | 100kHz /0.25V  | 8R2     |
| CR4030-100M   | 10              | 20                    | 115                         | 1.95     | 1.50      | 100kHz /0.25V  | 100     |
| CR4030-120M   | 12              | 20                    | 140                         | 1.70     | 1.35      | 100kHz /0.25V  | 120     |
| CR4030-150M   | 15              | 20                    | 190                         | 1.65     | 1.15      | 100kHz /0.25V  | 150     |
| CR4030-180M   | 18              | 20                    | 215                         | 1.40     | 1.10      | 100kHz /0.25V  | 180     |
| CR4030-220M   | 22              | 20                    | 225                         | 1.30     | 1.00      | 100kHz /0.25V  | 220     |
| CR4030-270M   | 27              | 20                    | 320                         | 1.25     | 0.90      | 100kHz /0.25V  | 270     |
| CR4030-330M   | 33              | 20                    | 330                         | 1.10     | 0.84      | 100kHz /0.25V  | 330     |
| CR4030-470M   | 47              | 20                    | 500                         | 0.90     | 0.72      | 100kHz /0.25V  | 470     |
| CR4030-560M   | 56              | 20                    | 560                         | 0.85     | 0.65      | 100kHz /0.25V  | 560     |
| CR4030-680M   | 68              | 20                    | 750                         | 0.75     | 0.55      | 100kHz /0.25V  | 680     |
| CR4030-820M   | 82              | 20                    | 950                         | 0.68     | 0.50      | 100kHz /0.25V  | 820     |
| CR4030-101M   | 100             | 20                    | 1150                        | 0.60     | 0.45      | 100kHz /0.25V  | 101     |
| CR4030-121M   | 120             | 20                    | 1350                        | 0.55     | 0.42      | 100kHz /0.25V  | 121     |
| CR4030-151M   | 150             | 20                    | 2350                        | 0.50     | 0.35      | 100kHz /0.25V  | 151     |
| CR4030-181M   | 180             | 20                    | 2500                        | 0.40     | 0.35      | 100kHz /0.25V  | 181     |
| CR4030-221M   | 220             | 20                    | 3000                        | 0.40     | 0.30      | 100kHz /0.25V  | 221     |
| CR4030-331M   | 330             | 20                    | 4400                        | 0.30     | 0.23      | 100kHz /0.25V  | 331     |
| CR4030-471M   | 470             | 20                    | 5500                        | 0.30     | 0.20      | 100kHz /0.25V  | 471     |

※ All test data is referenced to 25°C ambient;

**Isat (A):** DC Saturation Current that will cause initial inductance to drop approximately 30% max.

**Irise(A):** DC Current that will cause an approximate  $\Delta T$  of 40 °C

**Measuring Instrument :**

L:H10KI3532-50

DCR:H10KI 3540

I sat / Irise:HP4284+42841A

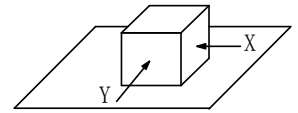
### 3. General Characteristics

3-1. Storage Temperature range :  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

3-2. Operating temperature range:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (Including coil's self temperature rise)

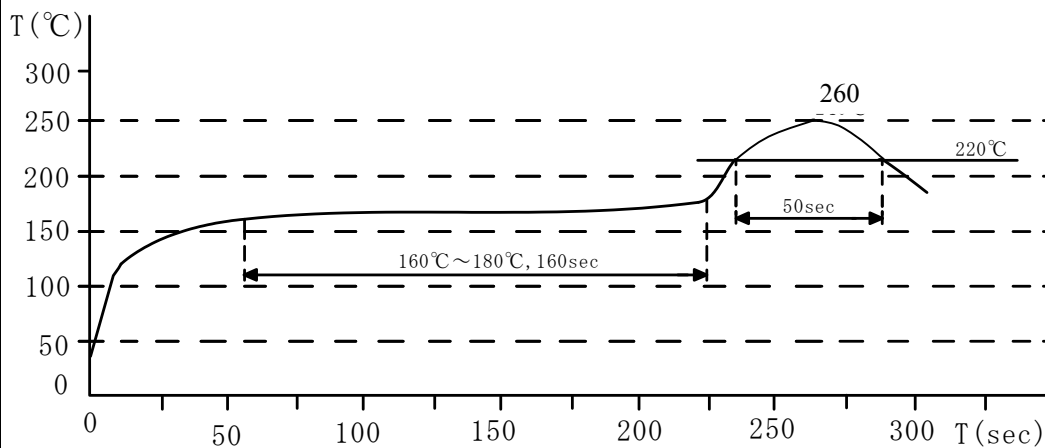
3-3. External appearance : No external defects can be found in the visual inspection.

3-4. 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)



3-5. 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  $10 \sim 55 \sim 10\text{Hz}$  and the amplitude of 1 minute cycle is 1.5mm PP.

3-6. Recommended reflow condition:

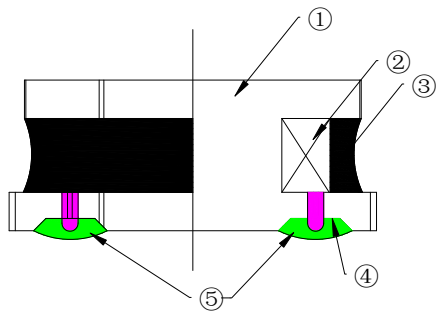


3-7. Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^{\circ}\text{C}$ , and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

**LEAD-FREE**

**RoHS**  
Compliance

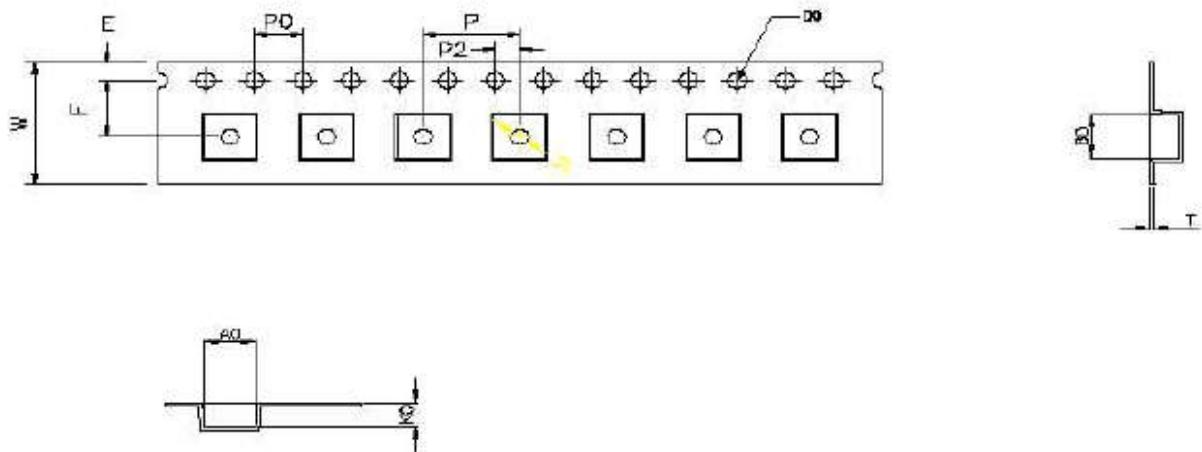
#### 4. Construction and materials



| No. | Part name          | Material  | Ceaiya P/N |
|-----|--------------------|---|------------|
| ①   | Drum Core          | Ni-Zn Ferrite Core  | YN/MT/CY   |
| ②   | Wire               | Polyurethane enameled copper wire                           | 3210200    |
| ③   | Adhesive           | Epoxy Resin Magnetic Powder                                 | 7001007    |
| ④   | Plating Electrodes | Plating: Ag 3-7 $\mu$ m<br>Ni 1-3 $\mu$ m<br>Sn 3-7 $\mu$ m |            |
| ⑤   | Outer Electrodes   | Top surface solder coating Sn99%、Ag0.3%、Cu0.7%              | YX         |

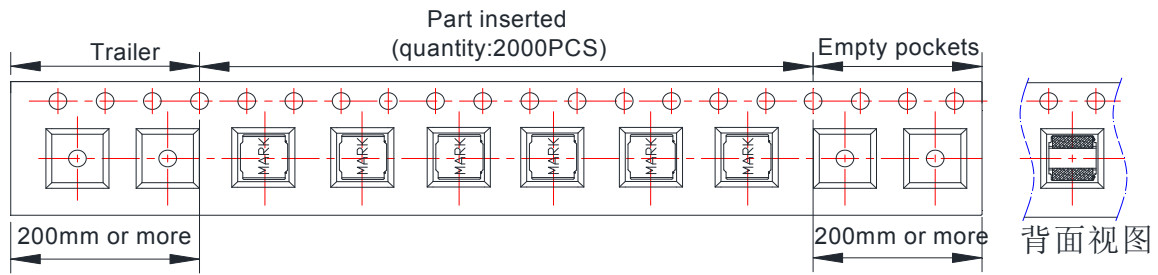
#### 5. Packaging and Marking:

5-1. Carrier Tape Dimensions:

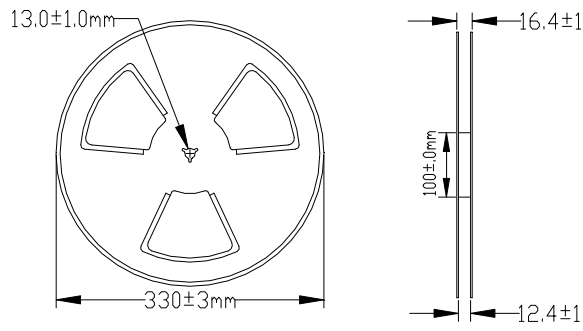


| ITEM | W              | A0        | B0        | K0        | P         | F         | E         | D0   | D1   | P0        | P2        | T          |
|------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|------|------|-----------|-----------|------------|
| DIM  | 12.00          | 4.5       | 4.5       | 3.2       | 8.00      | 5.50      | 1.75      | 1.50 | 1.50 | 4.00      | 2.00      | 0.30       |
| TOLE | +0.30<br>-0.10 | $\pm$ 0.1 | $\pm$ 0.1 | $\pm$ 0.1 | $\pm$ 0.1 | $\pm$ 0.1 | $\pm$ 0.1 | +0.1 | +0.1 | $\pm$ 0.1 | $\pm$ 0.1 | $\pm$ 0.05 |

5-2. Taping Dimensions:



5-3. Reel Dimensions:

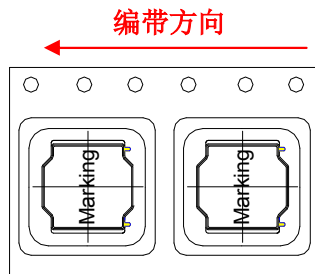


6. PACKAGE SPECIFICATION:

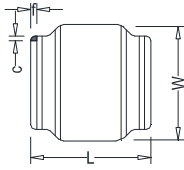
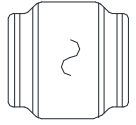
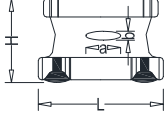
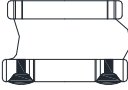
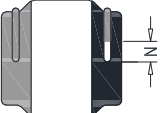
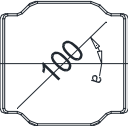
2KPCS/ Reel    6KPCS/ Inner Box    18KPCS/ Outer Box

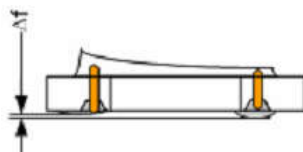
编带方向，如下图所示

编带时，卷带前后各留空 20cm 最小



## Visual Inspection Standard of Product

| No. | Defect Item    | Figure  | Rejection Identification  | Acceptance |
|-----|----------------|---|---|------------|
| 1   | Core Defect    |    | The defect length(c or f)more than L/6 or W/6 , NG  | AQL=0.65   |
| 2   | Core Crack     |    | Visual cracks , NG  | AQL=0.65   |
| 3   | Starvation     |    | (1)Resin starved length a more than L/2, NG<br>(2)When $L > 2\text{mm}$ , $b > H/2$ , NG<br>(3)When $L \leq 2\text{mm}$ , b don't control | AQL=0.65   |
| 4   | Excessive glue |  | The length, width or height of product beyond specified value, NG   | AQL=0.65   |
| 5   | Cold Solder    |  | (1)For CR2520** Series , cold solder $N > 0.5\text{mm}$ ,NG<br>(2)For other series, cold solder $N > 1\text{mm}$ ,NG                      | AQL=0.65   |
| 6   | Marking Defect |  | The marking angle $a > 45^\circ$ , NG   | AQL=0.65   |



$\Delta f$ : Clearance between terminal and the surface of plate must be 0.15mm max when coil is placed on a flat plate.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Fixed Inductors](#) category:*

*Click to view products by [Ceaiya](#) manufacturer:*

Other Similar products are found below :

[CR32NP-100KC](#) [CR54NP-470LC](#) [70F224AI](#) [MGDQ4-00004-P](#) [MHQ1005P10NJ](#) [MHQ1005P1N0S](#) [MHQ1005P2N4S](#) [MHQ1005P3N6S](#)  
[MHQ1005P5N1S](#) [MHQ1005P8N2J](#) [PE-53601NL](#) [PE-53602NL](#) [PG0936.113NLT](#) [9220-20](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#)  
[1206CS-471XJ](#) [HC2-R47-R](#) [HC8-1R2-R](#) [HCF1305-3R3-R](#) [1206CS-151XG](#) [RCH664NP-140L](#) [RCH664NP-4R7M](#) [RCP1317NP-391L](#)  
[RCR110DNP-331L](#) [DH2280-4R7M](#) [DS1608C-106](#) [B10TJ](#) [B82498B3101J000](#) [ELJ-RE27NJF2](#) [1812CS-153XJ](#) [1812CS-183XJ](#) [1812CS-](#)  
[223XJ](#) [1812LS-104XJ](#) [1812LS-105XJ](#) [1812LS-124XJ](#) [1812LS-154XJ](#) [1812LS-223XJ](#) [1812LS-224XJ](#) [1812LS-563XJ](#) [1812LS-683XJ](#)  
[1812LS-824XJ](#) [NIN-FB101JTR110F](#) [NIN-FB471JTR62F](#) [NIN-FC1R5JTR220F](#) [NIN-HCR15JTRF](#) [NIN-HCR33JTRF](#) [NIN-HDR22JTRF](#)