

Specification Sheet for Approved

| | |
|--------------------|----------------|
| Customer Name: | |
| Customer Part No.: | |
| Ceaiya Part No: | CR6045K Series |
| Spec No: | L0645K |

【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

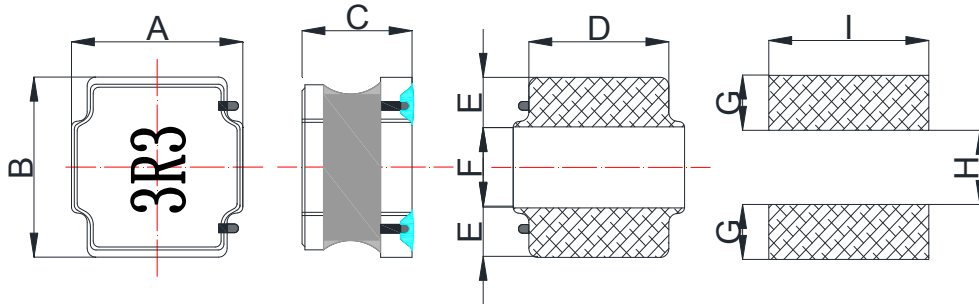
Tel: 0769-89135516

Fax: 0769-89135519

【Version of Changed Record】

| Rev. | Effective Date | Changed Contents | Change Reasons | Approved By |
|------|----------------|------------------|----------------|-------------|
| A0 | 2023.05.25 | New release | / | Li qing hui |
| | | | | |

1. Shape and Dimension (Unit:mm)



| A | B | C | D | E | F | G | H | I |
|-----------|-----------|---------|-----------|------------|-----------|---------|---------|---------|
| 6.0 ± 0.3 | 6.0 ± 0.3 | 4.5 Max | 4.9 ± 0.3 | 1.65 ± 0.3 | 2.7 ± 0.3 | 1.7 Ref | 2.8 Ref | 5.7 Ref |

注：喷码尺寸长 3.6 ± 0.5mm, 宽 2.5 ± 0.5mm

2. Electronic Characteristics List

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | | Marking |
|--------------|------------|---------------|-------|--------------------|------|---------------------|------|---------|
| | 100KHz/1V | Max. | Typ. | Max. | Typ. | Max. | Typ. | |
| Units | uH | Ω | Ω | A | A | A | A | |
| Symbol | L | DCR | | Isat | | Irms | | |
| CR6045K-1R0N | 1.0 ± 30% | 0.014 | 0.011 | 9.85 | 10.0 | 5.14 | 5.60 | 1R0 |
| CR6045K-1R8N | 1.8 ± 30% | 0.016 | 0.012 | 7.60 | 8.40 | 4.95 | 5.40 | 1R8 |
| CR6045K-2R2N | 2.2 ± 30% | 0.018 | 0.014 | 6.75 | 7.40 | 4.60 | 5.00 | 2R2 |
| CR6045K-2R7N | 2.7 ± 30% | 0.020 | 0.015 | 5.75 | 6.30 | 4.30 | 4.70 | 2R7 |
| CR6045K-3R3N | 3.3 ± 30% | 0.027 | 0.021 | 5.90 | 6.20 | 3.70 | 4.00 | 3R3 |
| CR6045K-3R6N | 3.6 ± 30% | 0.027 | 0.021 | 5.25 | 5.70 | 3.70 | 4.00 | 3R6 |
| CR6045K-4R7M | 4.7 ± 20% | 0.034 | 0.026 | 4.97 | 5.50 | 3.30 | 3.60 | 4R7 |
| CR6045K-5R1M | 5.1 ± 20% | 0.034 | 0.026 | 4.40 | 4.80 | 3.30 | 3.60 | 5R1 |
| CR6045K-5R6M | 5.6 ± 20% | 0.038 | 0.029 | 4.15 | 4.60 | 3.15 | 3.40 | 5R6 |
| CR6045K-6R8M | 6.8 ± 20% | 0.040 | 0.031 | 3.90 | 4.30 | 3.00 | 3.30 | 6R8 |
| CR6045K-100M | 10 ± 20% | 0.062 | 0.048 | 3.20 | 3.50 | 2.45 | 2.70 | 100 |
| CR6045K-120M | 12 ± 20% | 0.075 | 0.058 | 2.80 | 3.00 | 2.20 | 2.40 | 120 |
| CR6045K-150M | 15 ± 20% | 0.088 | 0.068 | 2.50 | 2.70 | 2.05 | 2.20 | 150 |
| CR6045K-180M | 18 ± 20% | 0.105 | 0.081 | 2.20 | 2.40 | 1.85 | 2.00 | 180 |
| CR6045K-220M | 22 ± 20% | 0.116 | 0.089 | 2.05 | 2.20 | 1.80 | 2.00 | 220 |
| CR6045K-270M | 27 ± 20% | 0.133 | 0.102 | 1.90 | 2.10 | 1.65 | 1.80 | 270 |
| CR6045K-300M | 30 ± 20% | 0.172 | 0.132 | 1.70 | 1.80 | 1.50 | 1.60 | 300 |
| CR6045K-330M | 33 ± 20% | 0.178 | 0.137 | 1.65 | 1.80 | 1.45 | 1.60 | 330 |
| CR6045K-360M | 36 ± 20% | 0.225 | 0.173 | 1.62 | 1.80 | 1.40 | 1.50 | 360 |
| CR6045K-390M | 39 ± 20% | 0.234 | 0.180 | 1.50 | 1.60 | 1.25 | 1.40 | 390 |
| CR6045K-470M | 47 ± 20% | 0.260 | 0.200 | 1.40 | 1.50 | 1.20 | 1.30 | 470 |
| CR6045K-560M | 56 ± 20% | 0.287 | 0.221 | 1.30 | 1.40 | 1.10 | 1.20 | 560 |
| CR6045K-680M | 68 ± 20% | 0.376 | 0.289 | 1.20 | 1.30 | 1.00 | 1.10 | 680 |
| CR6045K-820M | 82 ± 20% | 0.443 | 0.341 | 1.05 | 1.10 | 0.90 | 0.99 | 820 |
| CR6045K-101M | 100 ± 20% | 0.563 | 0.433 | 0.95 | 1.00 | 0.80 | 0.88 | 101 |
| CR6045K-121M | 120 ± 20% | 0.629 | 0.484 | 0.85 | 0.94 | 0.77 | 0.85 | 121 |
| CR6045K-151M | 150 ± 20% | 0.754 | 0.580 | 0.80 | 0.88 | 0.70 | 0.77 | 151 |
| CR6045K-221M | 220 ± 20% | 1.084 | 0.834 | 0.70 | 0.77 | 0.59 | 0.65 | 221 |
| CR6045K-331M | 330 ± 20% | 1.651 | 1.270 | 0.57 | 0.63 | 0.57 | 0.63 | 331 |
| CR6045K-681M | 680 ± 20% | 3.250 | 2.500 | 0.42 | 0.46 | 0.33 | 0.38 | 681 |
| CR6045K-102M | 1000 ± 20% | 5.850 | 4.500 | 0.30 | 0.35 | 0.30 | 0.35 | 102 |
| CR6045K-152M | 1500 ± 20% | 8.450 | 6.500 | 0.24 | 0.27 | 0.21 | 0.24 | 152 |
| CR6045K-222M | 2200 ± 20% | 12.48 | 10.40 | 0.20 | 0.23 | 0.17 | 0.20 | 222 |

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

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

Irise : DC Current that will cause an approximate ΔT of 40 °C

Measuring Instrument :

L:HIOKI3532-50

DCR:HIOKI 3540

Isat / Irise: HP4284A+42841

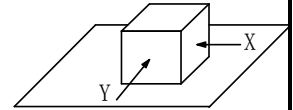
3. General Characteristics

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)

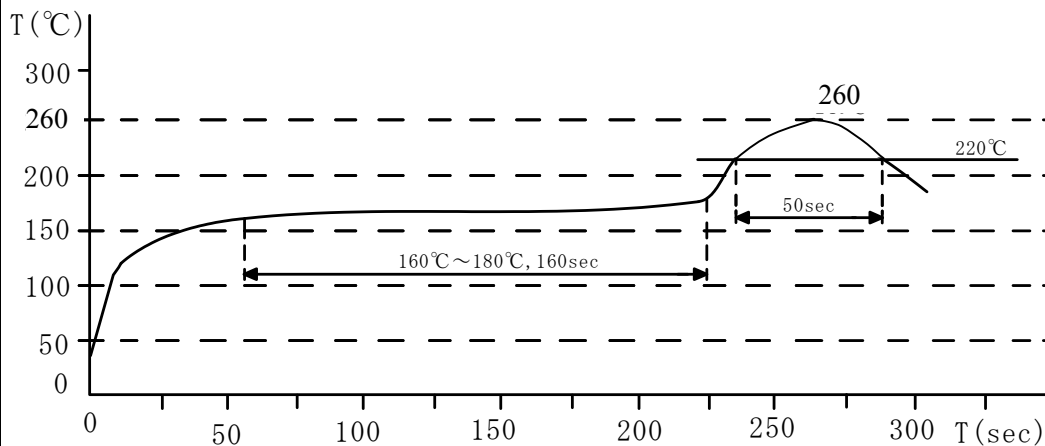
3-3. External appearance : No external defects can be found in the visual inspection.

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 ± 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:

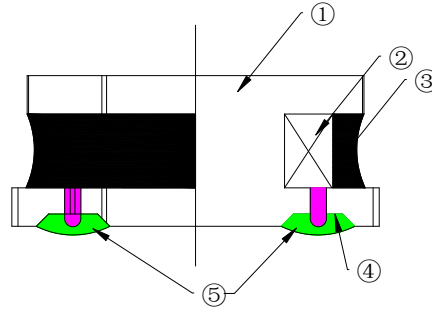


3-7. Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ and temperature of $60 \pm 2^{\circ}\text{C}$, and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

LEAD-FREE

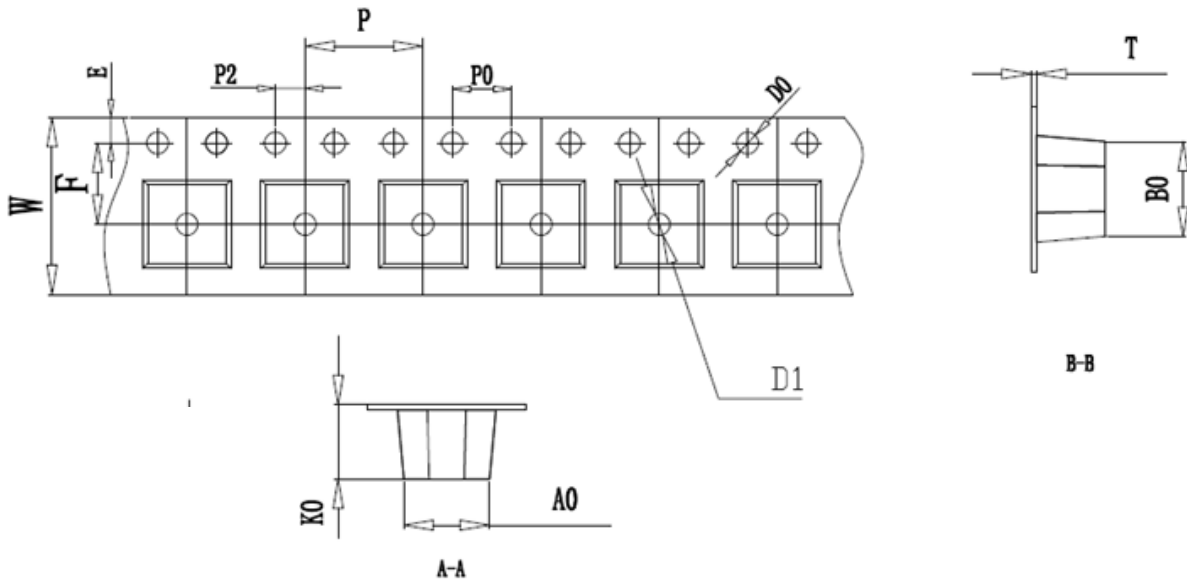


4. Construction and materials



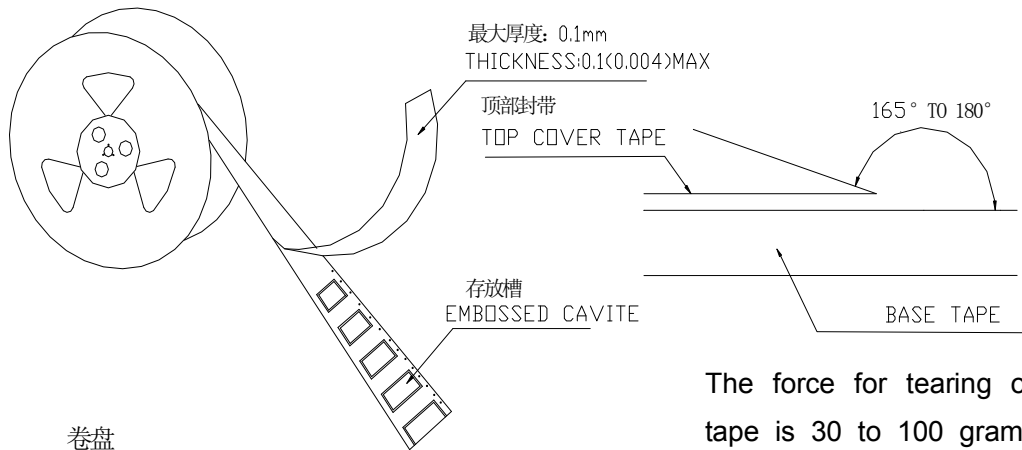
| No. | Part name | Material | Ceaiya P/N |
|-----|--------------------|---|------------|
| ① | Drum Core | Ni-Zn Ferrite Core | CY/TW |
| ② | Wire | Polyurethane enameled copper wire | YLSL |
| ③ | Adhesive | Epoxy Resin Magnetic Powder | CH/DZ |
| ④ | Plating Electrodes | Plating: Ag 3-7 μ m Ni 1-3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

5. Package Specification

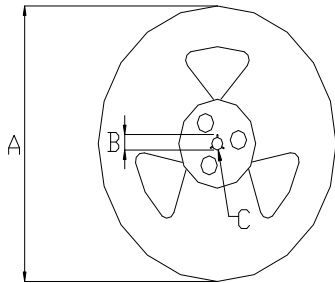


| ITEM | W | A0 | B0 | K | P1 | F | E | D0 | P0 | P2 | T |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----------|-----------|------------|
| DIM | 12.00 | 6.3 | 6.3 | 4.7 | 8.00 | 5.50 | 1.75 | 1.50 | 4.00 | 2.00 | 0.40 |
| TOLE | ± 0.3 | ± 0.1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

6. CARRIER REEL DIMENSIONS:



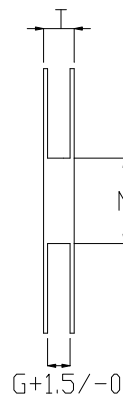
卷盘
Carrier Tape Reel



The force for tearing off cover tape is 30 to 100 grams in the arrow direction/按箭头的方向施加 30 克至 100 克力撕开

材质: 纸/塑胶

MATERIAL: PAPER/PLASTIC

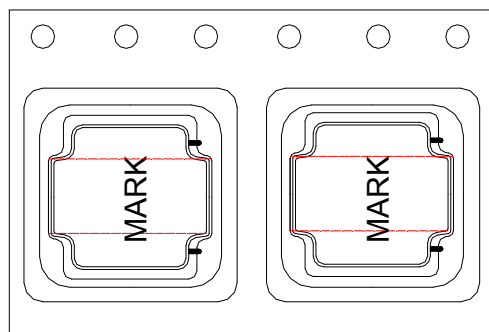


Unit: mm

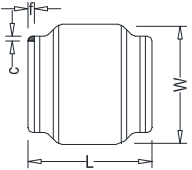
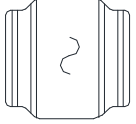
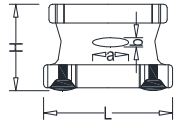
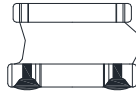
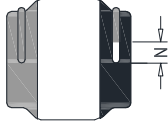
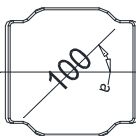
| Type | A | B | C | G | N | T |
|------|-----|--------|--------|------|-----|------|
| 12mm | 330 | 21±0.8 | 13±0.4 | 12.4 | 100 | 16.4 |

7. PACKAGE SPECIFICATION :

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



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 (2)When $L > 2\text{mm}$, $b > H/2$, NG (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 (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 |



Δf : Clearance between terminal and the surface of plate must be 0.2mm 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](#)