

## Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CR3010 Series
Spec No:	L310

### 【For Customer Approval Only】

If you Approval, Please Stamp

### 【RoHS Compliant Parts】

Approved By	Checked By	Prepared By
李庆辉	查凯	劳水花

## Shenzhen Ceaiya Electronics Co., Ltd.

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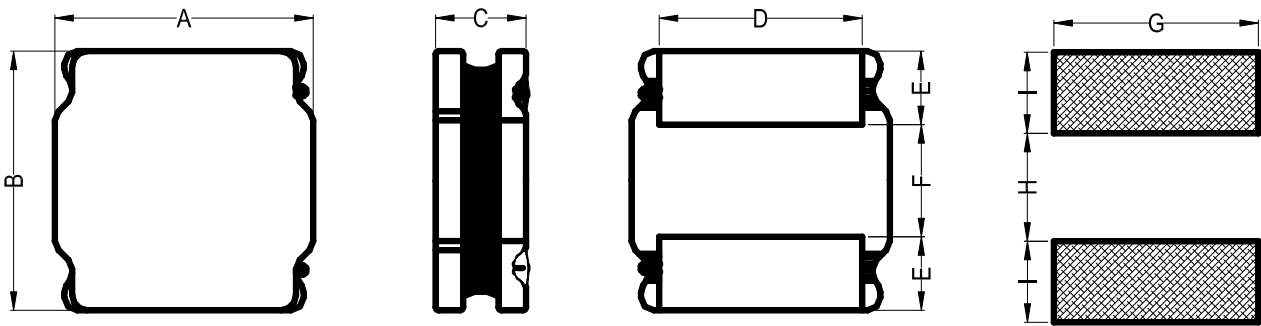
[Http://www.ceaiya.com](http://www.ceaiya.com)

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



A	B	C	D	E	F	G	H	I
3.0 ± 0.2	3.0 ± 0.2	1.0Max	2.5 ± 0.3	0.8 ± 0.2	1.4 ± 0.3	2.7 Ref	1.5 Ref	0.8 Ref

## 2. Electronic Characteristics List

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	DCR(m $\Omega$ ) $\pm$ 30%	Isat (A)	Irise (A)	Test Condition
CR3010-1R0N	1.0	30	65	1.40	1.45	100KHz /0.25V
CR3010-1R5N	1.5	30	80	1.27	1.30	100KHz /0.25V
CR3010-2R2M	2.2	20	110	1.15	1.09	100KHz /0.25V
CR3010-3R3M	3.3	20	145	0.97	0.96	100KHz /0.25V
CR3010-4R7M	4.7	20	225	0.75	0.77	100KHz /0.25V
CR3010-6R8M	6.8	20	305	0.65	0.66	100KHz /0.25V
CR3010-100M	10	20	400	0.60	0.58	100KHz /0.25V
CR3010-150M	15	20	610	0.42	0.47	100KHz /0.25V
CR3010-220M	22	20	930	0.35	0.38	100KHz /0.25V

### 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:HI0KI3532-50

DCR:HI0KI 3540

Isat / Irise:HP4284+42841A

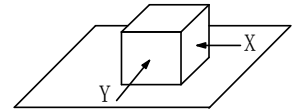
### 3. General Characteristics

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)

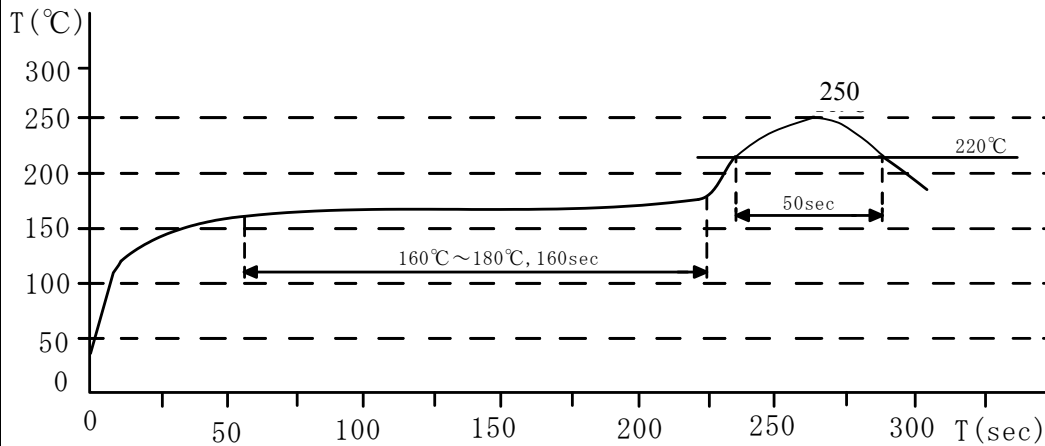
3-3. External appearance : No external defects can be found in the visual inspection.

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:

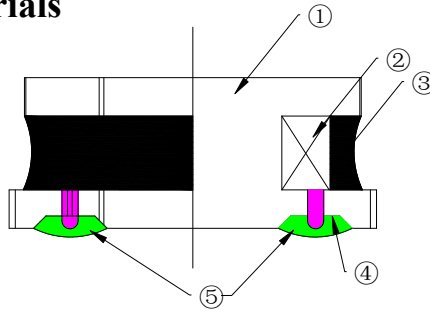


3-7. Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^{\circ}\text{C}$ , and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

**LEAD-FREE**



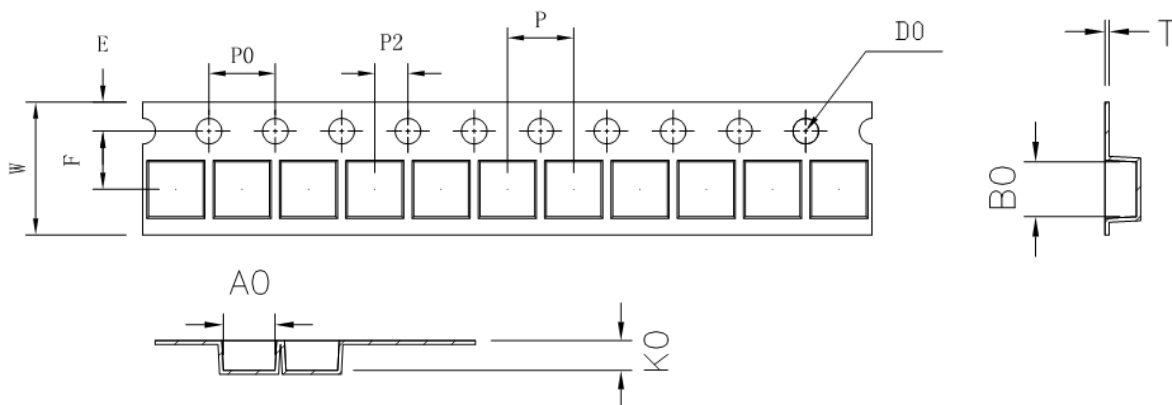
#### 4. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	TZD/CY/MT
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

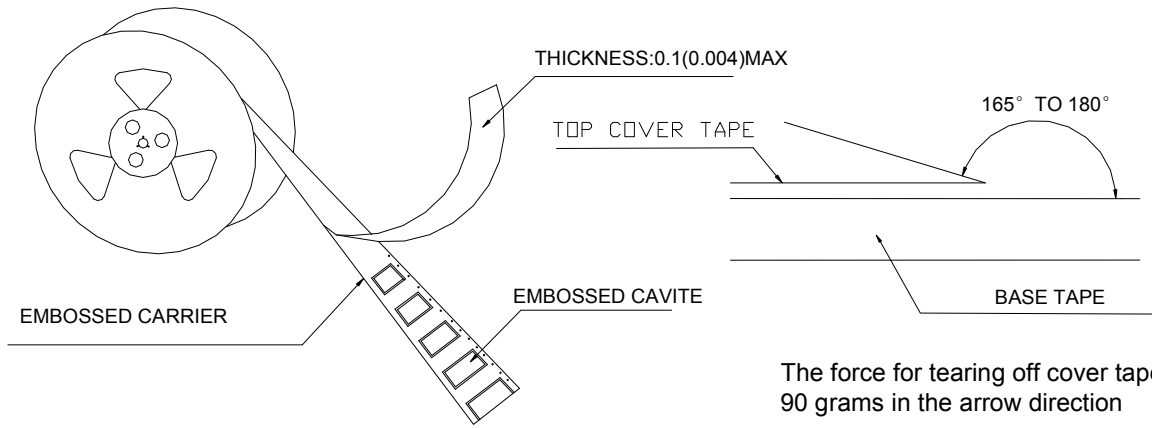
#### 5. Packaging and Marking:

5-1. Carrier Tape Dimensions:

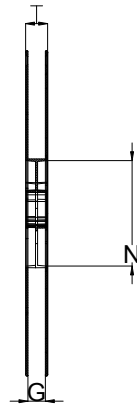
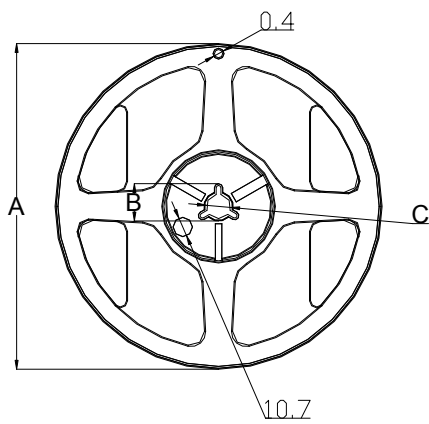


ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.2	3.2	1.4	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	$\pm 0.1$	$\pm 0.05$	$\pm 0.05$	$\pm 0.05$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	+0.1	$\pm 0.1$	$\pm 0.1$	$\pm 0.05$

5-2. Reel Dimensions:



Carrier Tape Reel



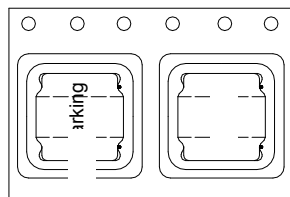
MATERIAL:PAPER/PLASTIC

Type	A	B	C	G	N	T
8mm	178	20.7±0.8	13±0.4	9	60	10.8

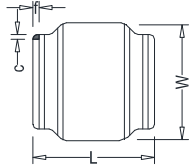
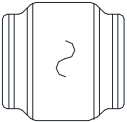
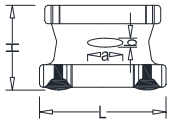
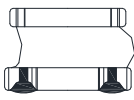
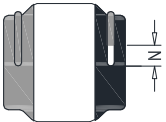
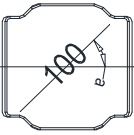
6. PACKAGE SPECIFICATION:

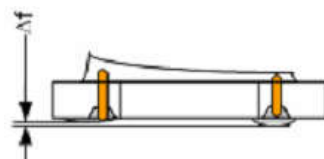
2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

编带方向，如右图所示



## 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>2mm,b>H/2, NG (3)When L≤2mm, 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>0.5mm,NG (2)For other series, cold solder N>1mm,NG	AQL=0.65
6	Marking Defect		The marking angle a>45° , NG	AQL=0.65



Δf: Clearance between terminal and the surface or plate must be 0.1mm max when coil is placed on a flat plate.

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