

Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CR3012 系列
Spec No:	L029-2

【For Customer Approval Only】

If you Approval, Please Stamp

【RoHS Compliant Parts】

Approved By	Checked By	Prepared By
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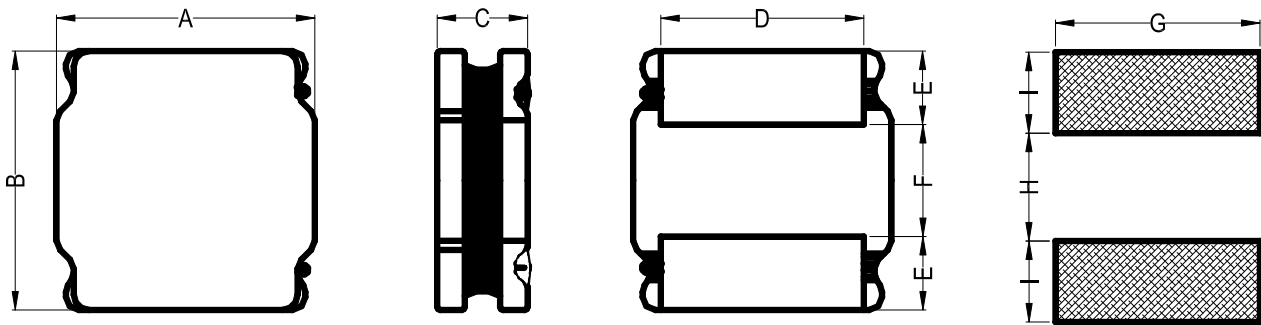
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【Version of Changed Record】

Rev.	Effective Date	Changed Contents	Change Reasons	Approved By
A0	2024.04.25	New release	/	Li qing hui

1. Shape and Dimension (Unit:mm)



A	B	C	D	E	F	G	H	I
3.0 ± 0.2	3.0 ± 0.2	1.2Max	2.5 ± 0.3	0.8 ± 0.3	1.40 ± 0.3	2.7Ref	1.5Ref	0.8Ref

2. Electronic Characteristics List

Part Number	Inductance (uH)	Tolerance (±%)	DCR(mΩ) ±30%	Isat (A)	Irise (A)	Test Condition
CR3012-R33N	0.33	30	21	3.00	2.90	100KHz /0.25V
CR3012-R47N	0.47	30	33	2.20	2.20	100KHz /0.25V
CR3012-R82N	0.82	30	40	2.05	2.10	100KHz /0.25V
CR3012-1R0N	1.0	30	48	1.90	2.00	100KHz /0.25V
CR3012-1R5N	1.5	30	55	1.62	1.85	100KHz /0.25V
CR3012-1R8N	1.8	30	68	1.50	1.70	100KHz /0.25V
CR3012-2R2M	2.2	20	75	1.20	1.55	100KHz /0.25V
CR3012-3R3M	3.3	20	100	1.05	1.35	100KHz /0.25V
CR3012-4R7M	4.7	20	120	0.90	1.25	100KHz /0.25V
CR3012-5R6M	5.6	20	160	0.80	1.10	100KHz /0.25V
CR3012-6R8M	6.8	20	190	0.75	1.00	100KHz /0.25V
CR3012-100M	10	20	265	0.60	0.89	100KHz /0.25V
CR3012-150M	15	20	430	0.45	0.72	100KHz /0.25V
CR3012-220M	22	20	630	0.42	0.55	100KHz /0.25V
CR3012-270M	27	20	800	0.35	0.45	100KHz /0.25V
CR3012-330M	33	20	875	0.36	0.46	100KHz /0.25V
CR3012-390M	39	20	1300	0.30	0.37	100KHz /0.25V
CR3012-470M	47	20	1450	0.27	0.35	100KHz /0.25V

※ 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 ΔT of 40 °C

Measuring Instrument :

L:HIOKI3532-50

DCR:HIOKI 3540

Isat / Irise:HP4284+42841A

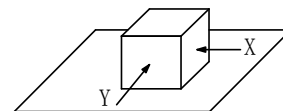
3. General Characteristics

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)

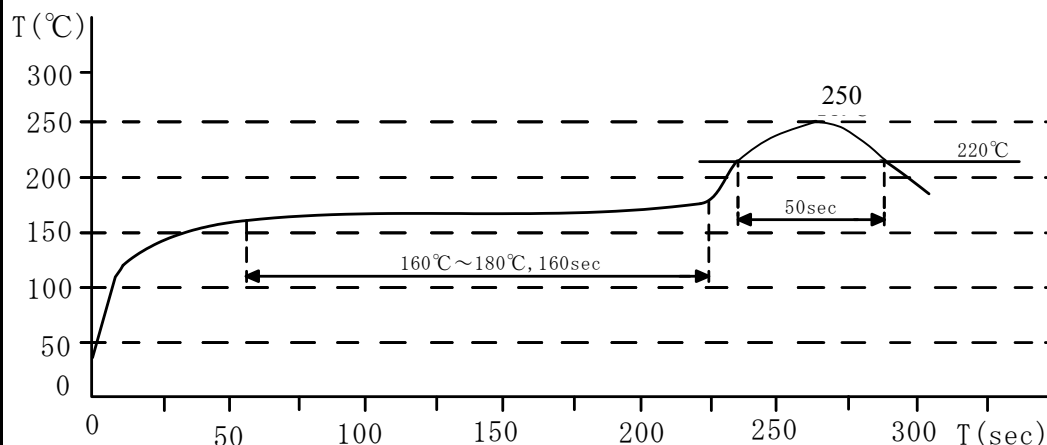
3-3. External appearance : No external defects can be found in the visual inspection.

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 ± 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:

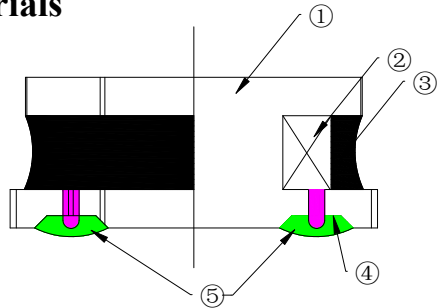


3-7. Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ and temperature of $60 \pm 2^{\circ}\text{C}$, and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

LEAD-FREE



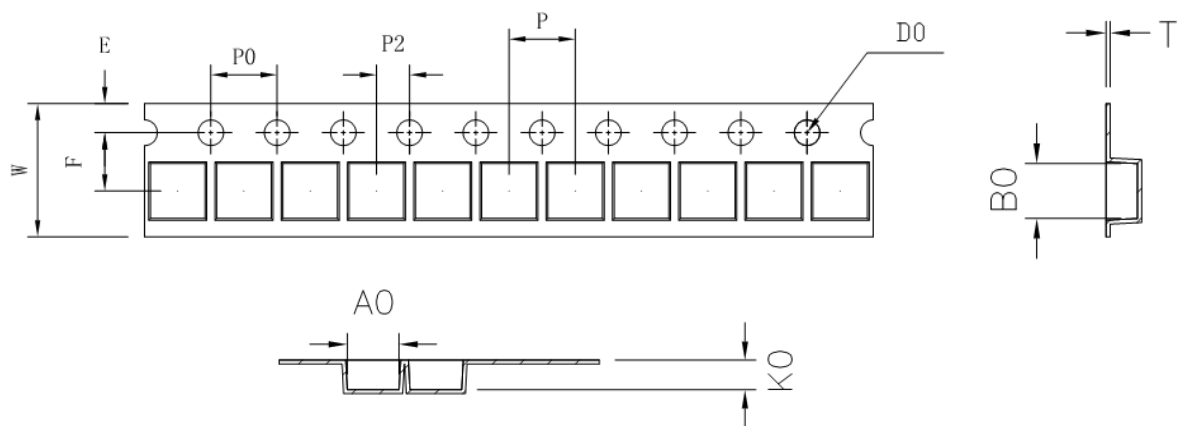
4. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	TZD/CY/MT
②	Wire	Polyurethane enameled copper wire	YLSL
③	Adhesive	Epoxy Resin Magnetic Powder	
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

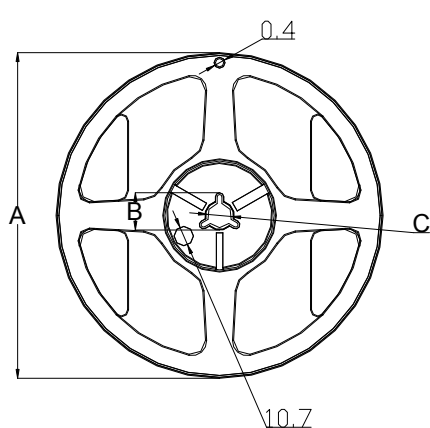
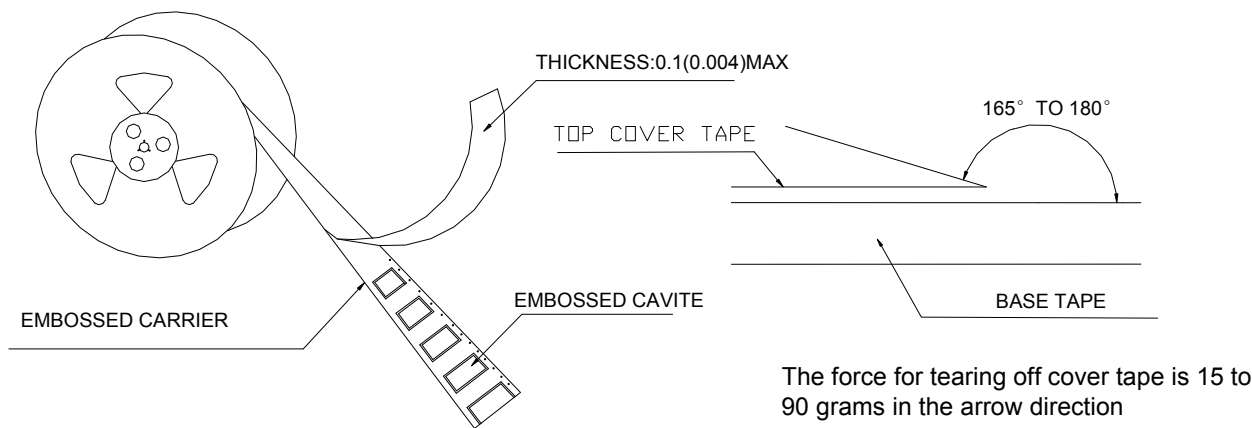
5.Packaging and Marking:

5-1.Carrier Tape Dimensions:



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.3	3.3	1.6	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.1	±0.05	±0.05	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

5-2. Reel Dimensions:



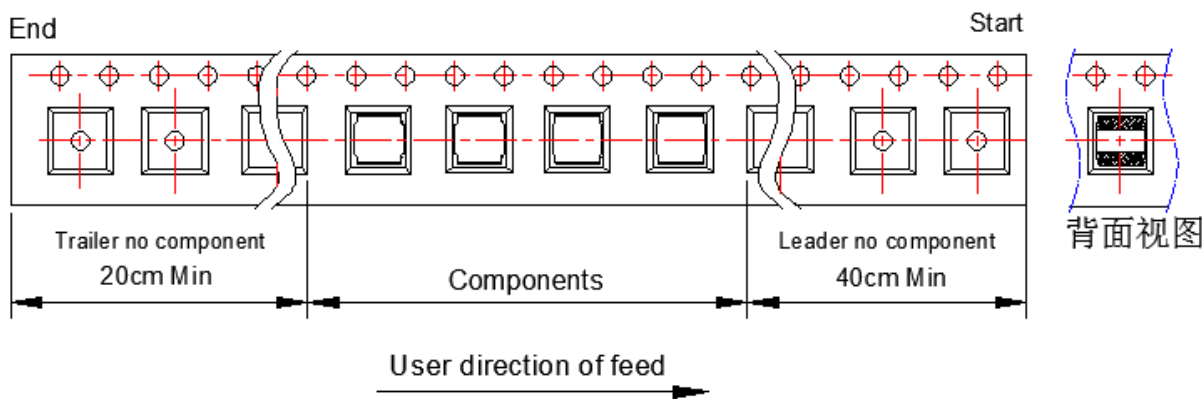
MATERIAL:PAPER/PLASTIC

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

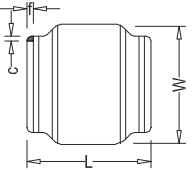
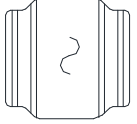
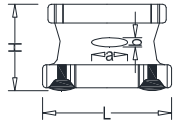
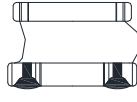
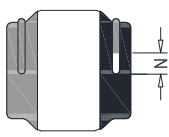
6. PACKAGE SPECIFICATION:

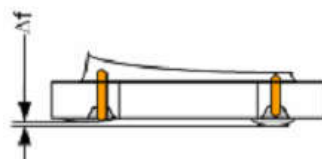
2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

热封编带方向 ， 如图所示



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 $L > 2\text{mm}$, $b > H/2$, 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 0.1mm max when coil is placed on a flat plate.