

## Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CR8040 Series
Spec No:	L058-1

### 【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

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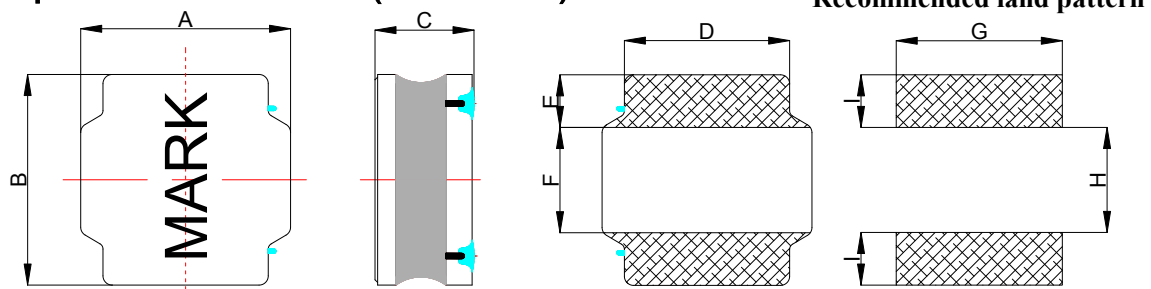
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**【Version of Changed Record】**

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

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



注：喷码整体尺寸规格，长  $4.9 \pm 0.5$ mm, 宽  $3.1 \pm 0.5$ mm

A	B	C	D	E	F	G	H	I
$8.0 \pm 0.3$	$8.0 \pm 0.3$	4.2Max	$6.3 \pm 0.3$	$2.0 \pm 0.3$	$4.0 \pm 0.3$	7.5Ref	3.8 Ref	2.2 Ref

\* Dimension without tolerance is approx.

## 2. Electronic Characteristics List

Part Number	Inductance (uH)	Tolerance (±%)	DCR(mΩ) ±30%	Isat (A)	Irise (A)	Test Condition	Marking
CR8040-R56N	0.56	30	5	11.5	7.6	1MHz /0.25V	R56
CR8040-1R0N	1.0	30	8	9.85	6.30	100KHz /0.25V	1R0
CR8040-1R5N	1.5	30	10	8.15	5.65	100KHz /0.25V	1R5
CR8040-2R2N	2.2	30	12	7.10	5.15	100KHz /0.25V	2R2
CR8040-3R3N	3.3	30	17	6.50	4.40	100KHz /0.25V	3R3
CR8040-3R6N	3.6	30	17	6.50	4.20	100KHz /0.25V	3R6
CR8040-4R7N	4.7	30	20	5.90	4.00	100KHz /0.25V	4R7
CR8040-5R6N	5.6	30	24	5.50	3.80	100KHz /0.25V	5R6
CR8040-6R8M	6.8	20	28	4.55	3.60	100KHz /0.25V	6R8
CR8040-8R2M	8.2	20	35	4.20	3.40	100KHz /0.25V	8R2
CR8040-100M	10	20	37	3.60	3.10	100KHz /0.25V	100
CR8040-120M	12	20	45	3.30	2.80	100KHz /0.25V	120
CR8040-150M	15	20	56	2.95	2.50	100KHz /0.25V	150
CR8040-180M	18	20	58	2.70	2.40	100KHz /0.25V	180
CR8040-220M	22	20	74	2.40	2.00	100KHz /0.25V	220
CR8040-270M	27	20	80	2.15	1.90	100KHz /0.25V	270
CR8040-330M	33	20	100	2.05	1.70	100KHz /0.25V	330
CR8040-470M	47	20	158	1.75	1.50	100KHz /0.25V	470
CR8040-560M	56	20	160	1.55	1.40	100KHz /0.25V	560
CR8040-680M	68	20	196	1.45	1.20	100KHz /0.25V	680
CR8040-820M	82	20	245	1.30	1.10	100KHz /0.25V	820
CR8040-101M	100	20	295	1.15	1.00	100KHz /0.25V	101
CR8040-121M	120	20	380	1.10	0.90	100KHz /0.25V	121
CR8040-151M	150	20	470	1.10	0.80	100KHz /0.25V	151
CR8040-171M	170	20	538	0.95	0.75	100KHz /0.25V	171
CR8040-181M	180	20	610	0.90	0.75	100KHz /0.25V	181
CR8040-221M	220	20	660	0.85	0.70	100KHz /0.25V	221
CR8040-331M	330	20	970	0.68	0.55	100KHz /0.25V	331
CR8040-471M	470	20	1400	0.60	0.48	100KHz /0.25V	471
CR8040-681M	680	20	1750	0.50	0.45	100KHz /0.25V	681

※ 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  $\Delta T$  of 40 °C

Measuring Instrument :

L:HIOKI3532-50

DCR:HIOKI 3540

Isat / Irise: HP4284A+42841

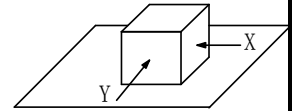
### 3. General Characteristics

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)

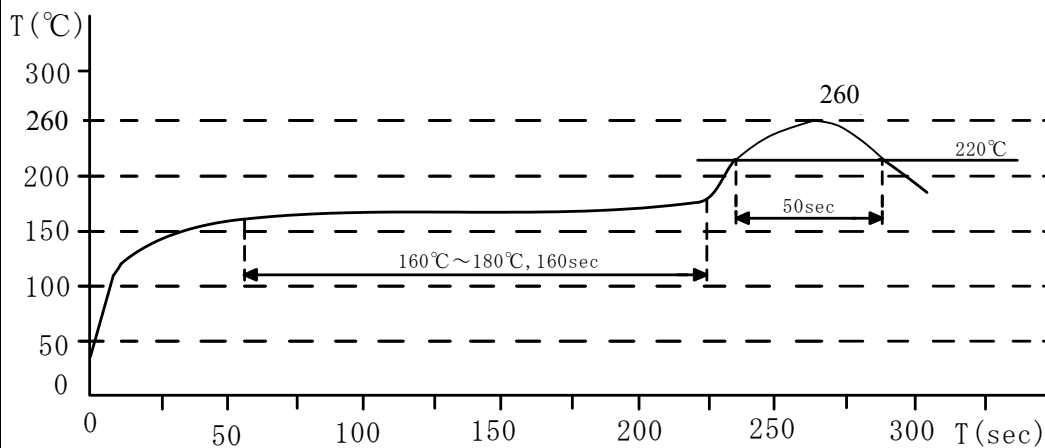
3-3. External appearance : No external defects can be found in the visual inspection.

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  $10 \pm 2$  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.

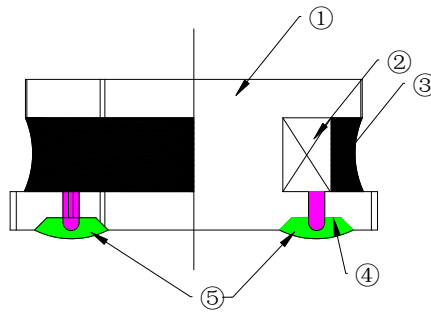
3-6. Recommended reflow condition :



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.

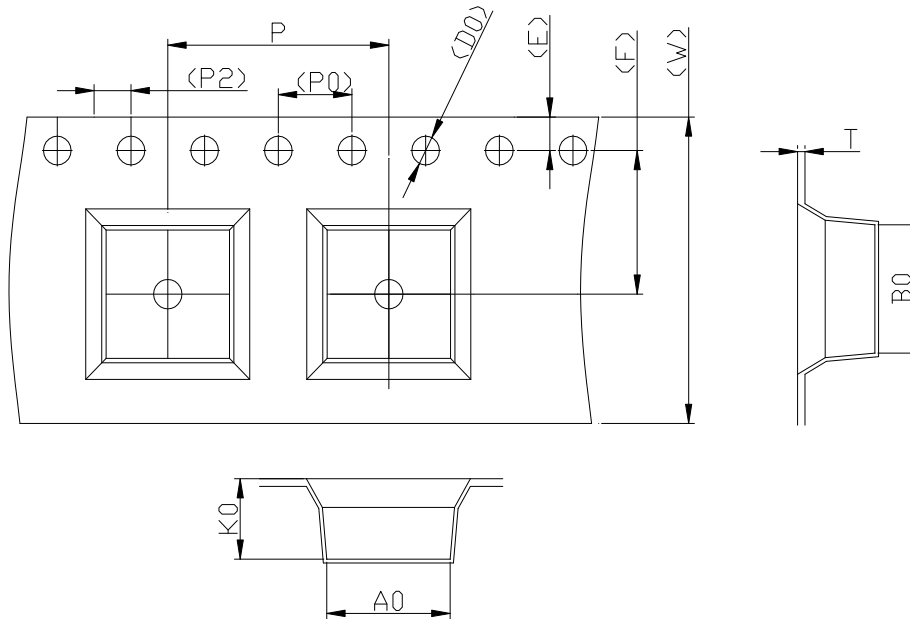


## 4. Construction



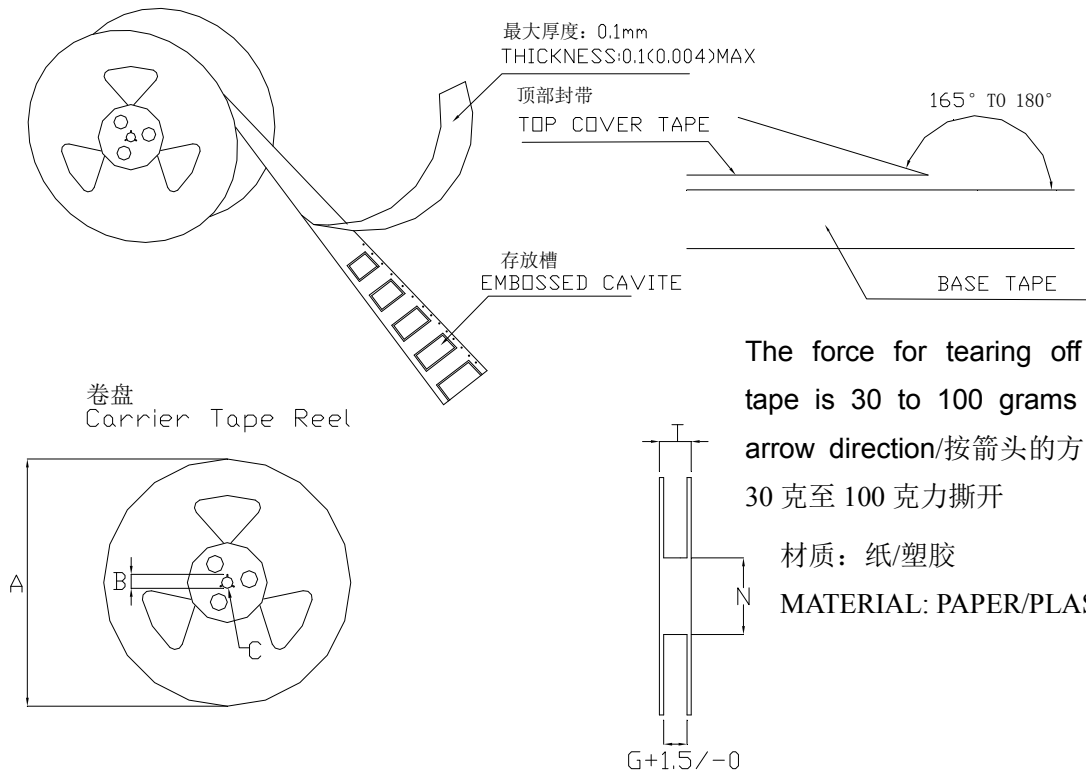
No.	Part name	Material	Manufacturer
①	Drum Core	Ni-Zn Ferrite Core	CY/FY
②	Wire	Polyurethane enameled copper wire	YLSL
③	Adhesive	Epoxy Resin Magnetic Powder	DZ/JH
④	Plating Electrodes	Plating: Ag 3-7 $\mu\text{m}$ Ni 1-3 $\mu\text{m}$ Sn 3-7 $\mu\text{m}$	
⑤	Outer Electrodes	Top surface solder coating Sn99%、 Ag0.3%、Cu0.7%	YX

## 5. Package Specification



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	$\pm 0.3$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	+0.1	+0.1	$\pm 0.1$	$\pm 0.1$	$\pm 0.05$

## 6. CARRIER REEL DIMENSIONS:

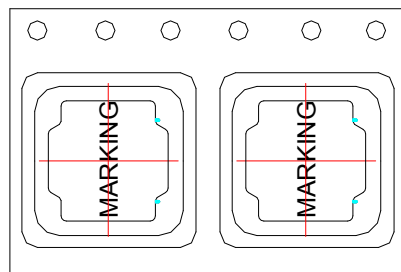


Unit: mm

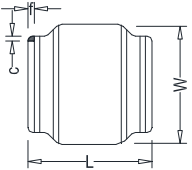
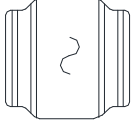
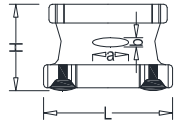
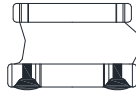
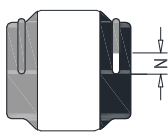
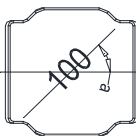
Type	A	B	C	G	N	T
16mm	330	21±0.8	13±0.4	16.4	100	20.4

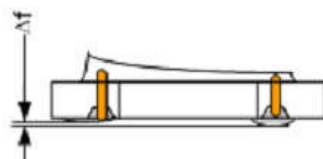
## 7. PACKAGE SPECIFICATION :

1KPCS/Reel 3KPCS/Inner Box 9KPCS/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



$\Delta f$ : Clearance between terminal and the surface of plate must be 0.2mm max when coil is placed on a flat plate.

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