

Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CR4018A Series
Spec No:	L418A

【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](http://www.szceaiya.com)

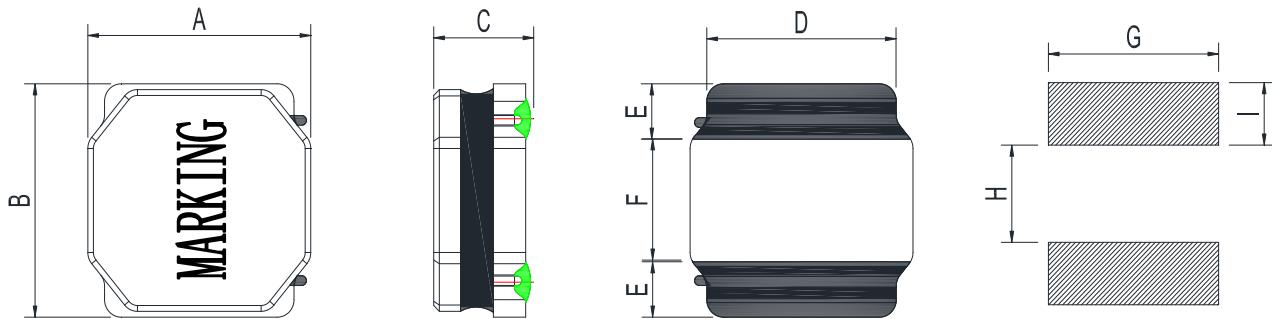
Tel: 0769-89135516

Fax: 0769-89135519

【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)



注：喷码尺寸长 2.5 ± 0.5 mm, 宽 2.0 ± 0.5 mm

A	B	C	D	E	F	G	H	I
4.0 ± 0.2	4.0 ± 0.2	1.85Max	3.3 ± 0.2	1.0 ± 0.2	2.0 Ref	3.7 Ref	1.9 Ref	1.1 Ref

2. Electronic Characteristics List

Part Number	Inductance (uH)	Tolerance ($\pm\%$)	DCR(mΩ) $\pm 30\%$	Isat (A)	Irise (A)	Test Condition	Marking
CR4018A-R47N	0.47	30	18	6.50	4.10	100KHz /1.0V	R47
CR4018A-1R0N	1.0	30	27	4.00	3.20	100KHz /1.0V	1R0
CR4018A-1R5N	1.5	30	37	3.30	2.40	100KHz /1.0V	1R5
CR4018A-2R2M	2.2	20	42	3.00	2.20	100KHz /1.0V	2R2
CR4018A-3R3M	3.3	20	55	2.30	2.00	100KHz /1.0V	3R3
CR4018A-4R7M	4.7	20	70	2.00	1.70	100KHz /1.0V	4R7
CR4018A-6R8M	6.8	20	98	1.60	1.45	100KHz /1.0V	6R8
CR4018A-100M	10	20	150	1.30	1.20	100KHz /1.0V	100
CR4018A-150M	15	20	210	1.10	0.85	100KHz /1.0V	150
CR4018A-220M	22	20	290	0.90	0.72	100KHz /1.0V	220
CR4018A-330M	33	20	480	0.70	0.55	100KHz /1.0V	330
CR4018A-390M	39	20	780	0.68	0.55	100KHz /1.0V	390
CR4018A-470M	47	20	755	0.65	0.60	100KHz /1.0V	470
CR4018A-680M	68	20	1000	0.50	0.50	100KHz /1.0V	680
CR4018A-101M	100	20	1450	0.42	0.28	100KHz /1.0V	101

※ 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

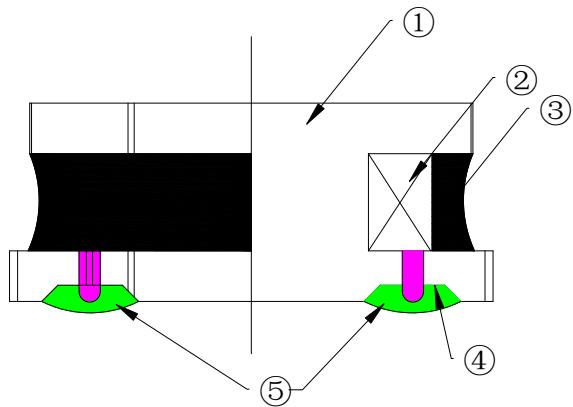
Measuring Instrument :

L:HIOKI3532-50

DCR:HIOKI 3540

Isat / Irise:HP4284A+42841

3. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	YN/YX/DYG
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

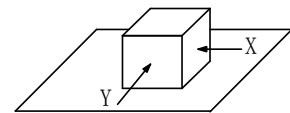
4. General Characteristics

4-1. Storage Temperature range : $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

4-2. Operating temperature range: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (Including coil's self temperature rise)

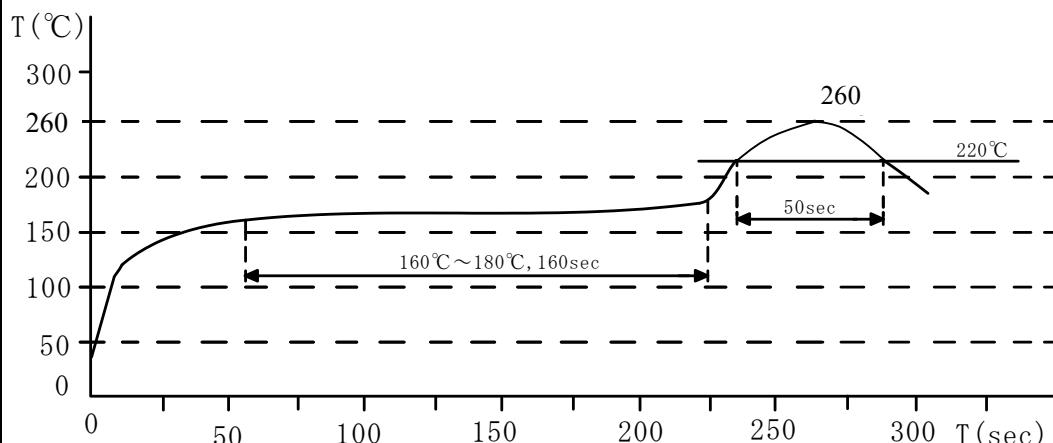
4-3. External appearance : No external defects can be found in the visual inspection.

4-4. 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)



4-5. 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.

4-6. Recommended reflow condition:



4-7. 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.



5. PACKAGE SPECIFICATION:

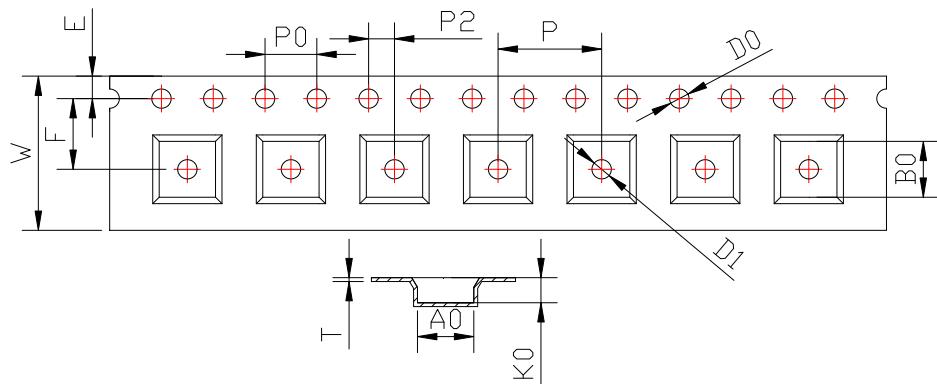
5-1. 3KPCS/ Reel 9KPCS/ Inner Box 27KPCS/ Outer Box

编带方向 , 如下图所示

5-2. MSL: level 1

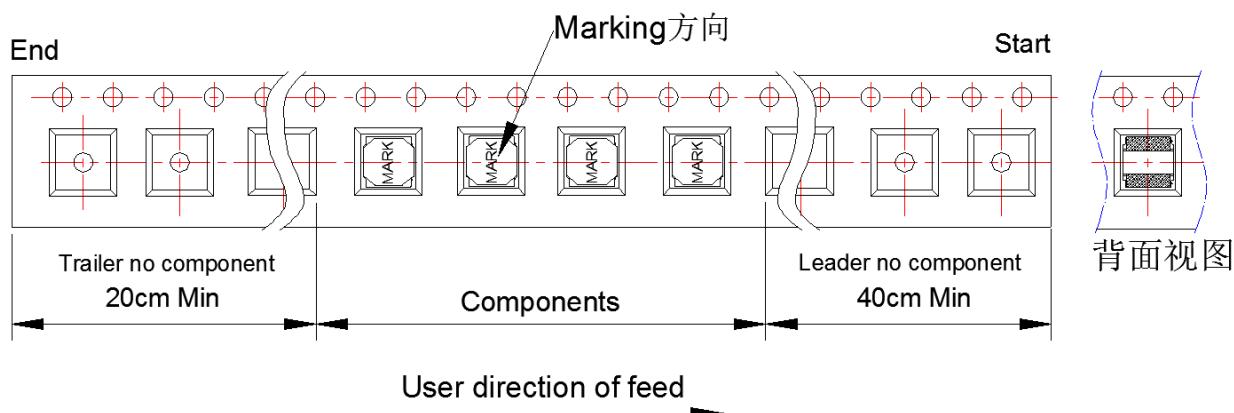
6. Packaging and Marking:

6-1. Carrier Tape Dimensions:

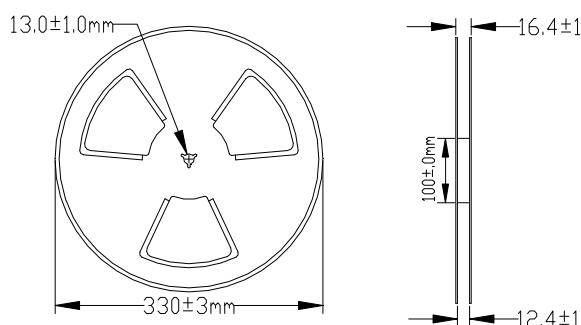


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.35	4.35	1.95	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	± 0.1	+0.1	+0.1	± 0.1	± 0.1	± 0.05					

6-2. Taping Dimensions:

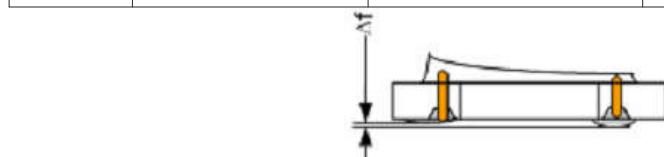


6-3. Reel Dimensions:



7. 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 of plate must be 0.1mm max when coil is placed on a flat plate.