

SPECIFICATION FOR APPROVAL

承 認 書

CUSTOMER

客戶名稱：

NUMBER

編號： L117

PART NO.

品 名：SMD POWER INDUCTORS

QUANTITY

數量：40PCS

DESCRIPTION

型 號：CR4020 - 1R5M

DATE

日期： 2024-05-11

CUSTOMER PART NO.

客戶料號：

NOTE

注解：

APPROVAL SIGNATURE

客戶承認簽章

Approved By 核 准	Checked By 审 查	Drawn By 制 作
李庆辉	刘志坚	劳水花

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SPECIFICATIONS

TYPE:

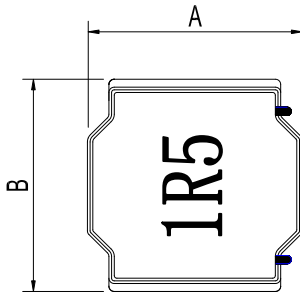
CR4020 - 1R5M

1. Scope

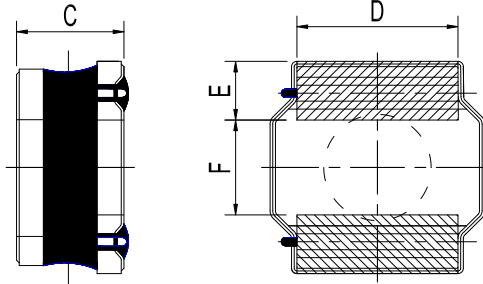
This specification apply for CR4020 of power inductors

2. Appearance

2-1.Dimensions(mm)



2-2.Recommended Land



A	4.0 ±0.2mm
B	4.0 ±0.2mm
C	2.1mm(MAX)
D	3.3±0.3mm
E	1.0±0.2mm
F	2.0±0.3mm

* Dimension without tolerance is approx.

3. Coils Specification

3-1. Connection (Bottom View)



“S” is winding start

3-2. Turns and Wire

Terminal	S-F
Turns	6.75Ts
Wire	0.21mm G1 P180

* Winding Turns are approx.

LEAD-FREE

RoHS

Compliance

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3-3. Electronical characteristics

Item	Specifications	Measuring Conditions	Measuring Instrument
Inductance	$1.5\mu\text{H} \pm 20\%$	100KHz/0.25V	HIOKI3532-50
D.C.R	$35\text{m}\Omega \pm 30\%$	25°C	HIOKI3540
Isat※1	4.45A ($\Delta L/L_0 \leq 30\%$)	100KHz/0.25V	Microtest 6377& 6220
Irms※2	1.98A ($\Delta T=40^\circ\text{C}$)	25°C	Microtest 6377& 6220

※ 1.This indicates the value of current when the inductance is 30% lower than its initial value at D.C superposition

※ 2. D.C current when temperature rise $\Delta T=40^\circ\text{C}$

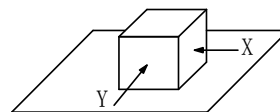
4. General Characteristics

4-1. Storage Temperature range : $-40^\circ\text{C} \sim +125^\circ\text{C}$

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

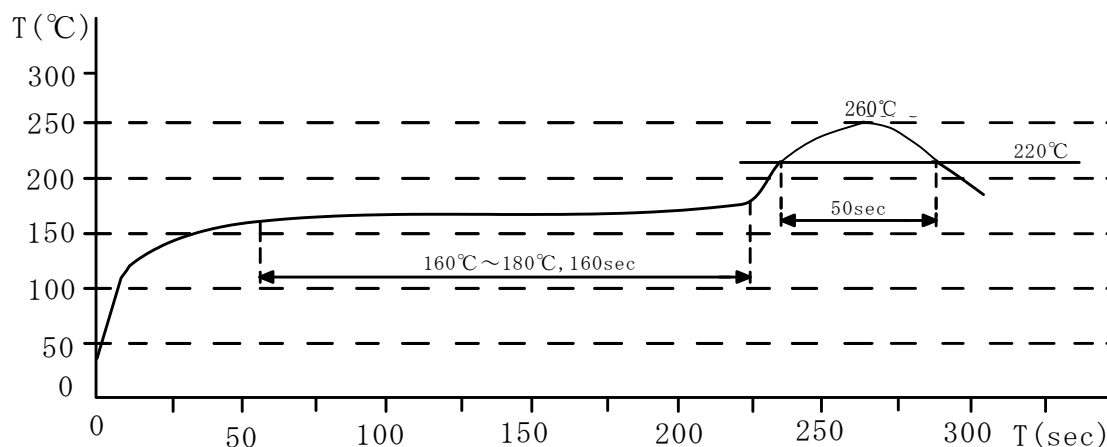
4-3. External appearance : No external defects can be found in the visual inspection.

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 :



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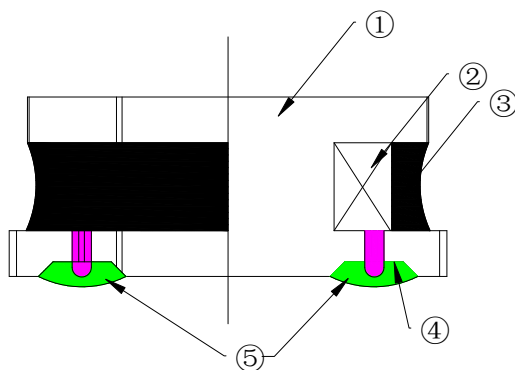
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4-7.Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ and temperature of $60 \pm 2^\circ\text{C}$, and 1 hour storage under room ambient conditions after the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

5. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	CY/YN/MT
②	Wire	Polyurethane enameled copper wire	YLSL
③	Adhesive	Epoxy Resin	7001007
④	Plating Electrodes	Plating: Ag 3-7 μm Ni 1-3 μm Sn 3-7 μm	
⑤	Outer Electrodes	Top surface solder coating Sn99%、 Ag0.3%、Cu0.7%	

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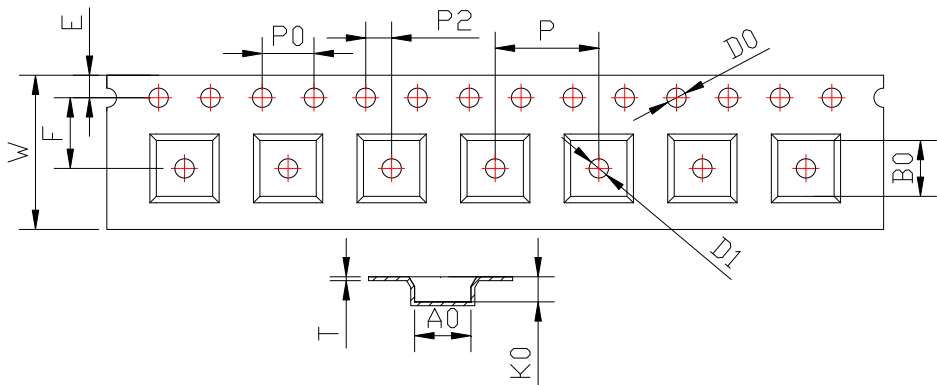
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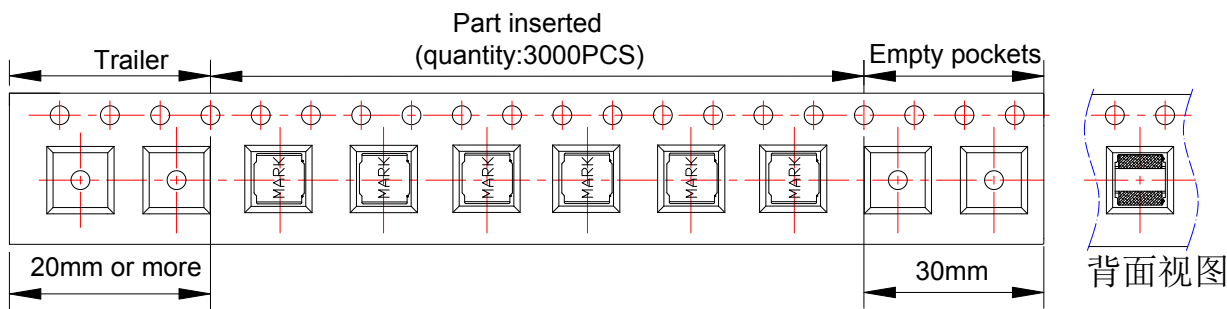
6.Packaging and Marking:

6-1.Carrier Tape Dimensions:

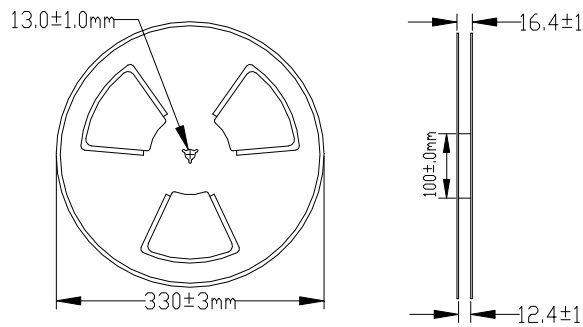


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.3	4.3	2.25	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

6-2.Taping Dimensions:



6-3.Reel Dimensions:



7. PACKAGE SPECIFICATION:

3KPCS/ Reel 9KPCS/ Inner Box 27KPCS/ Outer Box

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