

SPECIFICATION FOR APPROVAL

承 認 書

CUSTOMER

客戶名稱：

NUMBER

编号: L023-1

DESCRIPTION

型 號： CR5040 - 181M

QUANTITY

數量： 20PCS

PART NO.

品 名： SMD POWER INDUCTORS

DATE

日期： 2020-12-25

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
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SPECIFICATIONS

TYPE:

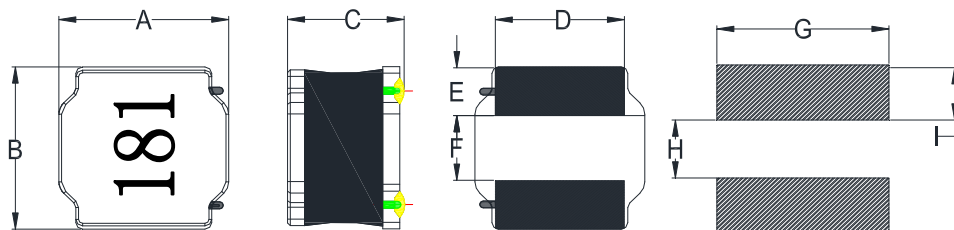
CR5040 - 181M

1. Scope

This specification apply for CR5040 of power inductors

2. Appearance

2-1.Dimensions(mm)



A	$5.0 \pm 0.3\text{mm}$
B	$5.0 \pm 0.3\text{mm}$
C	4.0mm MAX
D	$4.0 \pm 0.3\text{mm}$
E	$1.25 \pm 0.3\text{mm}$
F	$2.5 \pm 0.3\text{mm}$
G	4.2mm
H	2.3mm
I	1.4mm

* 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	73.75 Ts
Wire	0.14mm G1 P180

* Winding Turns are approx.

LEAD-FREE

RoHS

Compliance

Note :

1. 线包涂胶。
2. 印黑色字体。

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3-3. Electronical characteristics

Item	Specifications	Measuring Conditions	Measuring Instrument
Inductance	$180\mu\text{H} \pm 20\%$ Within	100KHz/0.25V	CH1062
D.C.R	$950\text{m}\Omega \pm 30\%$	At 25°C	CH502BC
Isat ※1	0.52A Max	100KHz/0.25V	CH1062&Chroma1320
Irise ※2	0.45A Max	At 25°C	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 $\Delta T=40^\circ\text{C}$ ($T_a=20^\circ\text{C}$)

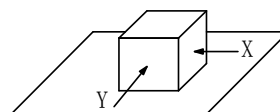
4. General Characteristics

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)

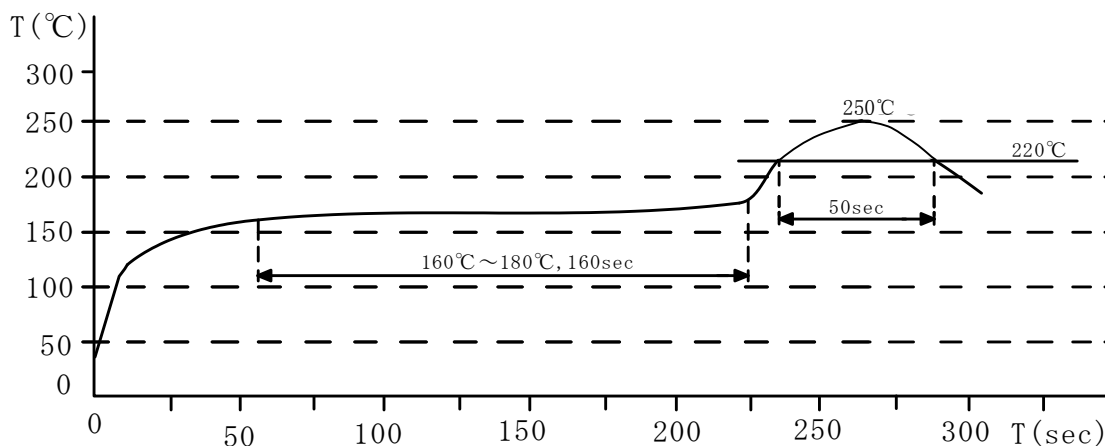
4-3.External appearance : No external defects can be found in the visual inspection.

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 $\pm 10\%$ 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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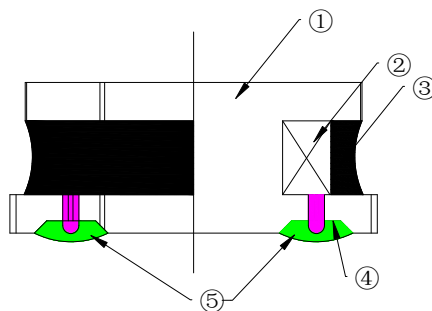
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4-7.Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ and temperature of $60 \pm 2^\circ\text{C}$, and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

5. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	TW/CY
②	Wire	Polyurethane enameled copper wire	3210200
③	Adhesive	Epoxy Resin Magnetic Powder	7001007
④	Plating Electrodes	Plating: Ag 10-20 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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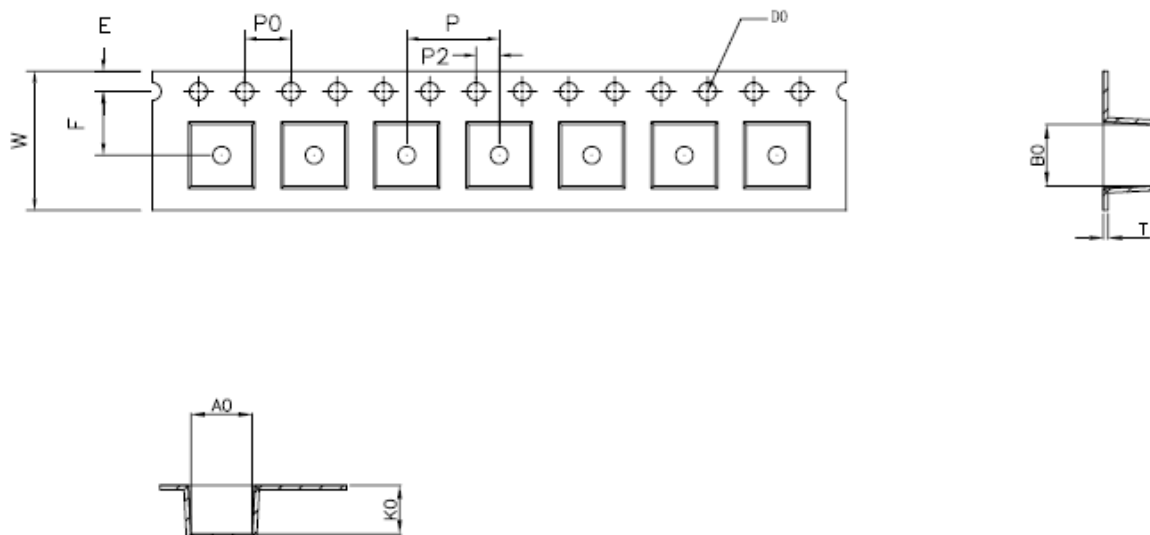
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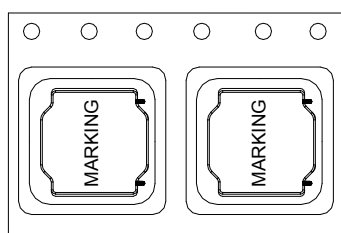
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6.Package Specification



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	5.3	5.3	4.3	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.4
TOLE	±0.3	±0.1	±0.1	±0.15	±0.1	±0.15	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05



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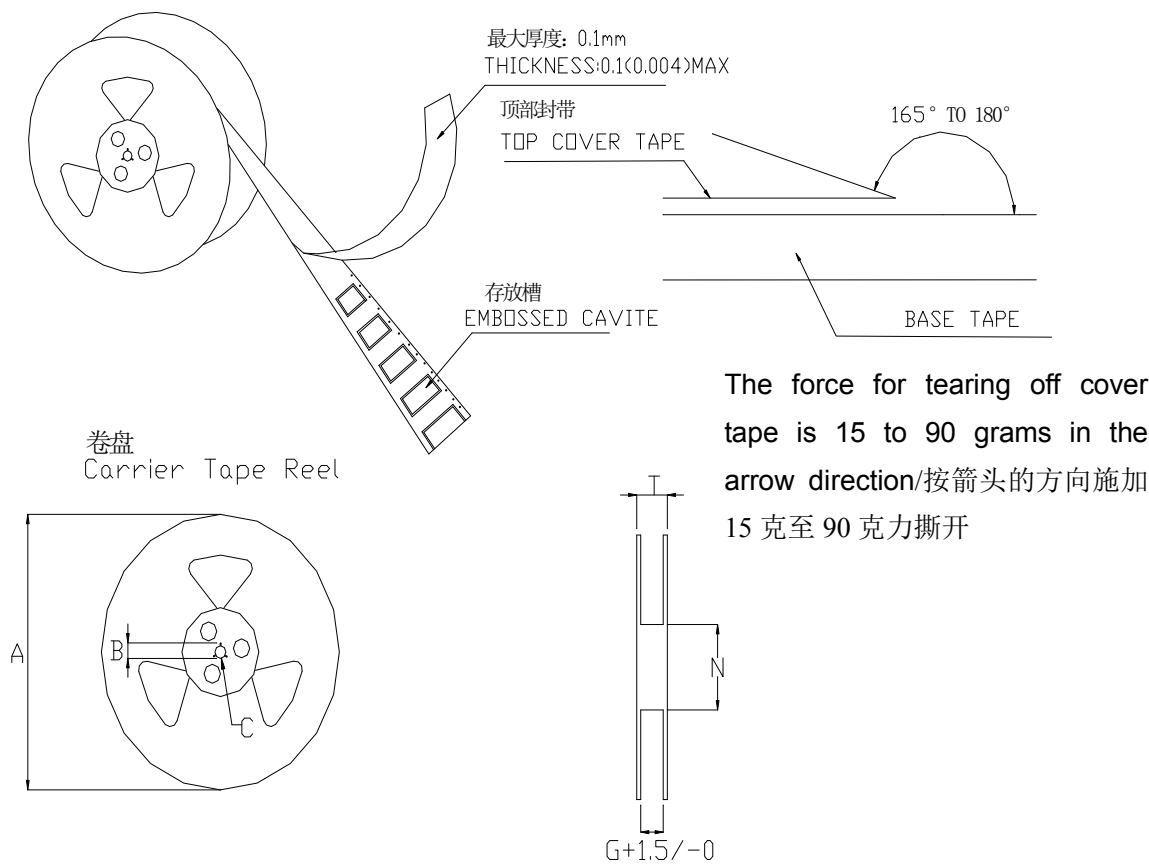
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7. CARRIER REEL DIMENSIONS:



Unit: mm

Type	A	B	C	G	N	T
12mm	330	21±0.8	13±0.4	12.4	100	16.4

8. PACKAGE SPECIFICATION :

1.5KPCS/Reel 4.5KPCS/Inner Box 13.5KPCS/Outer Box

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