

# SPECIFICATION FOR APPROVAL

## 承 認 書

**CUSTOMER**

客戶名稱：

**NUMBER**

編號：Y-18020602

**DESCRIPTION**

型 號： CR8040 - 152M

**QUANTITY**

數量：20PCS

**PART NO.**

品 名： SMD POWER INDUCTORS

**DATE**

日期：2023.4.6

**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

深圳市柯爱亚电子有限公司

**Shenzhen Ceaiya Electronics Co., Ltd.**

深圳地址：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

东莞地址：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 栋一单元

**Http://www.szceaiya.com**

**Tel: 0769-89135516**

**Fax: 0769-89135519**





## SPECIFICATIONS

TYPE:

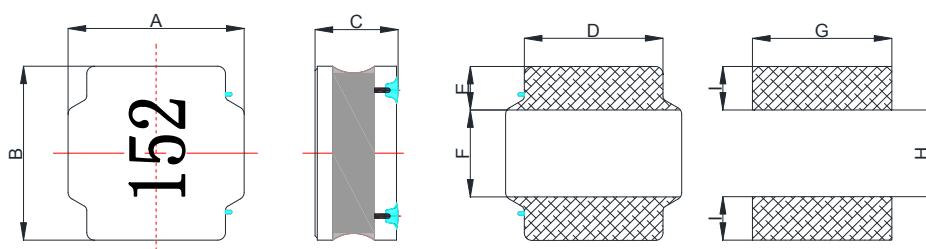
**CR8040 - 152M**

### 1. Scope

This specification apply for CR8040 of power inductors

### 2. Appearance

#### 2-1. Dimensions(mm)

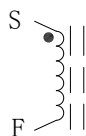


A	8.0mm $\pm$ 0.3
B	8.0mm $\pm$ 0.3
C	4.2mmMax
D	6.3 $\pm$ 0.3mm
E	2.0 $\pm$ 0.3mm
F	4.0 $\pm$ 0.3mm
G	7.5mm
H	3.8mm
I	2.2mm

\* 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	156.5 Ts
Wire	0.11mm 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	1.5mH $\pm$ 20% Within	100KHz/0.25V	CH1062/HIOKI3532-50
D.C.R	4.6 $\Omega$ $\pm$ 30%	25 $^{\circ}$ C	CH502BC/HIOKI3540
Isat ※1	0.35A	100KHz/0.25V	Microtest 6377&6220
Irise ※2	0.28A	25 $^{\circ}$ C	Microtest 6377&6220

※ This indicates the value of current when the inductance is 30% lower than its initial value at D.C superposition or D.C current when temperature rise  $\Delta T=40^{\circ}\text{C}$  whichever is lower .( $T_a=20^{\circ}\text{C}$ )

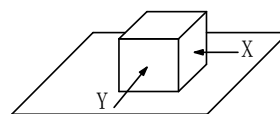
## 4. General Characteristics

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)

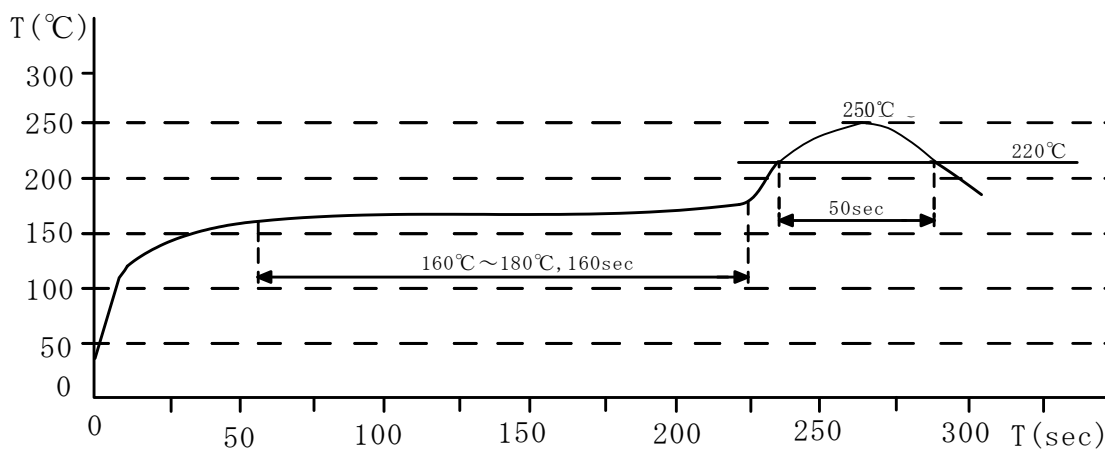
4-3. External appearance : No external defects can be found in the visual inspection.

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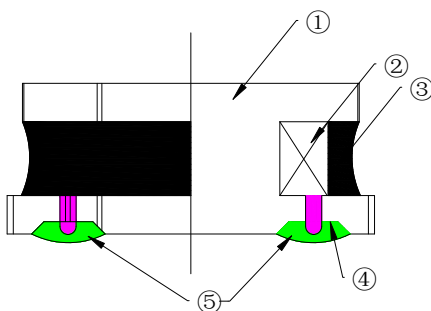
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4-7.Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^\circ\text{C}$ , and 1 hour storage under room ambient conditions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

## 5. Construction and materials



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

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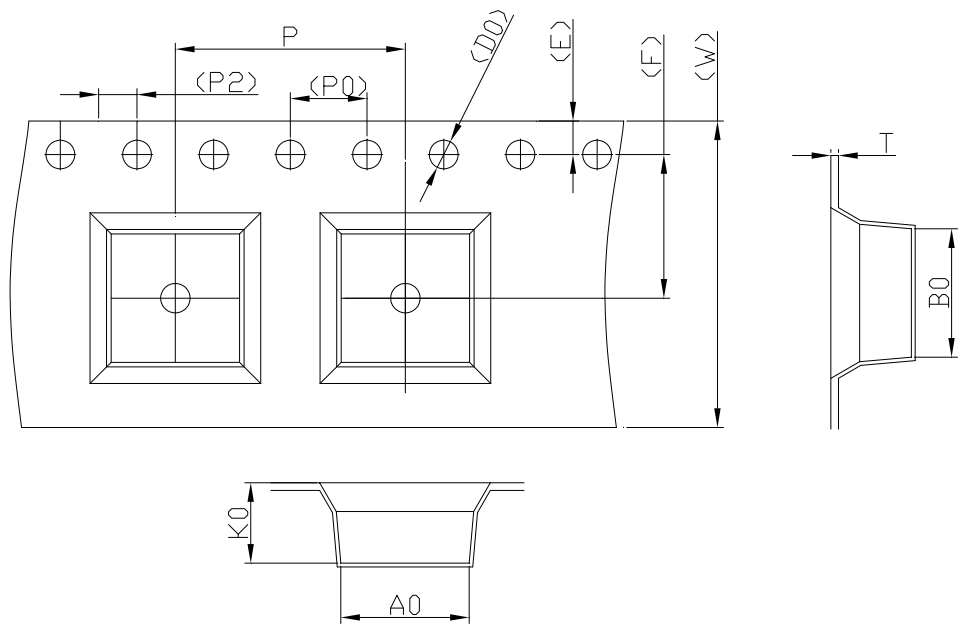
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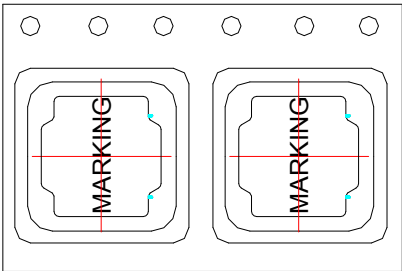
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6. TAPE DIMENSIONS:



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	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05



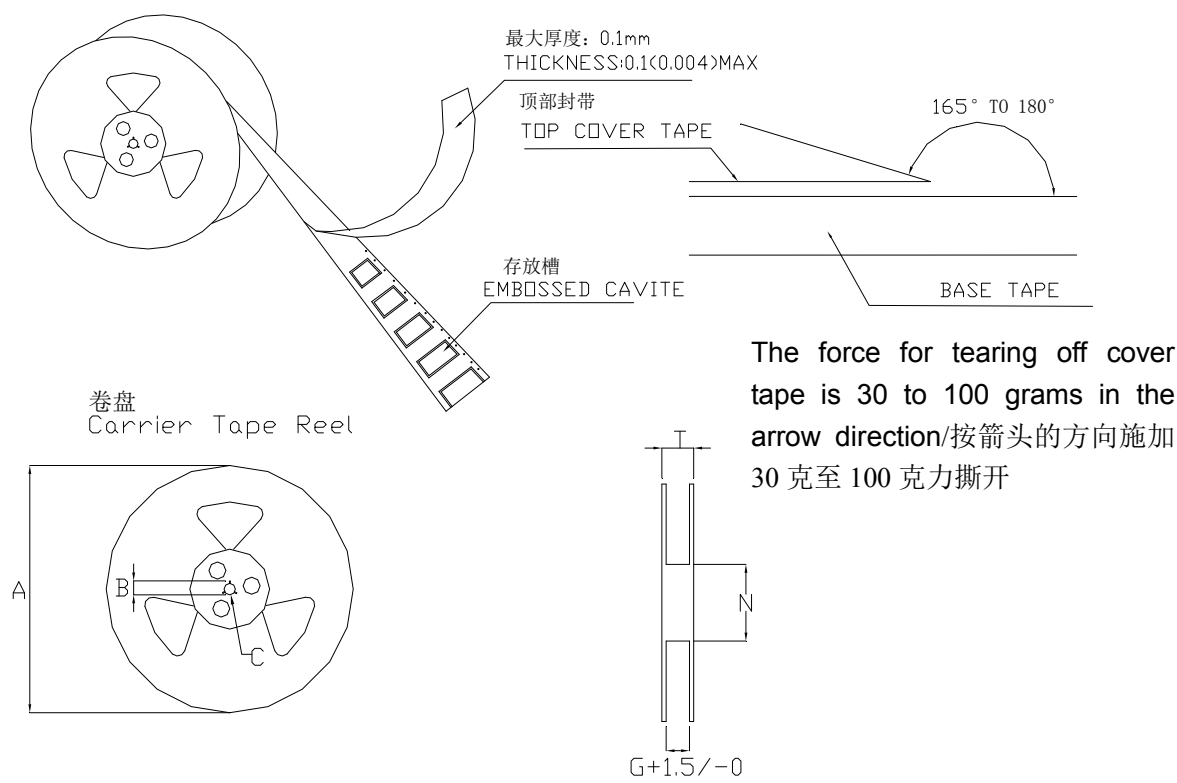
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7. TAPE REEL DIMENSIONS:



单位：毫米

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

8. PACKAGE SPECIFICATION :

1000PCS/Reel    3000PCS/Inner Box    9000PCS/Outer Box

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