

# SPECIFICATION FOR APPROVAL

## 承 認 書

**CUSTOMER**

客戶名稱：

**NUMBER**

編號：Y-17010401

**DESCRIPTION**

品 名：SMD POWER INDUCTORS

**QUANTITY**

數量：100PCS

**PART NO.**

型 號：CR4018A - 221M

**DATE**

日期：2022-07-12

**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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CUSTOMER:	SPECIFICATIONS (Revisions)	TYPE
		CR4018A - 221M

### History of change

Rev.	Effective Date	Changed Contents	Change reasons	Approved By
A0	2017-01-04	New release	/	

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# SPECIFICATIONS

TYPE:

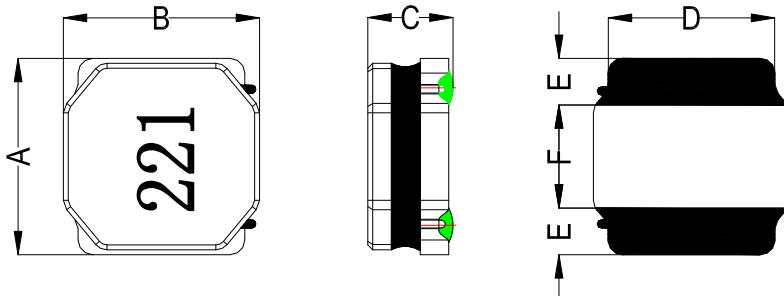
**CR4018A - 221M**

## 1. Scope

This specification apply for CR4018A of power inductors

## 2. Appearance

### 2-1. Dimensions(mm)

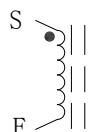


A	4.0±0.2mm
B	4.0±0.2mm
C	1.8mm(MAX)
D	3.3±0.3mm
E	1.05±0.3mm
F	1.9±0.3mm

\* 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	74.5Ts
Wire	0.06mm G1 P180

\* Winding Turns are approx.



Note :

线包需涂磁粉胶

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### 3-3. Electronical characteristics

Item	Specifications	Measuring Conditions	Measuring Instrument
Inductance	$220\mu\text{H} \pm 20\%$	100KHz/0.25V	CH1062
D.C.R	$4.6\Omega$ Max	$25^\circ\text{C}$	HIOKI 3540
Isat※1	$0.28\text{A} (\Delta L/L_0 \leq 30\%)$	100KHz/0.25V	CH1062&Chroma1320
Irms※2	$0.20\text{A}$ ( $\Delta T=40^\circ\text{C}$ )	$25^\circ\text{C}$	CH1062&Chroma1320

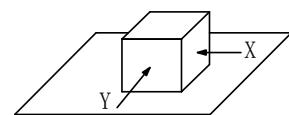
## 4. General Characteristics

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

4-2. Operating temperature range:  $-40^\circ\text{C} \sim +105^\circ\text{C}$  (Including coil's self temperature rise)

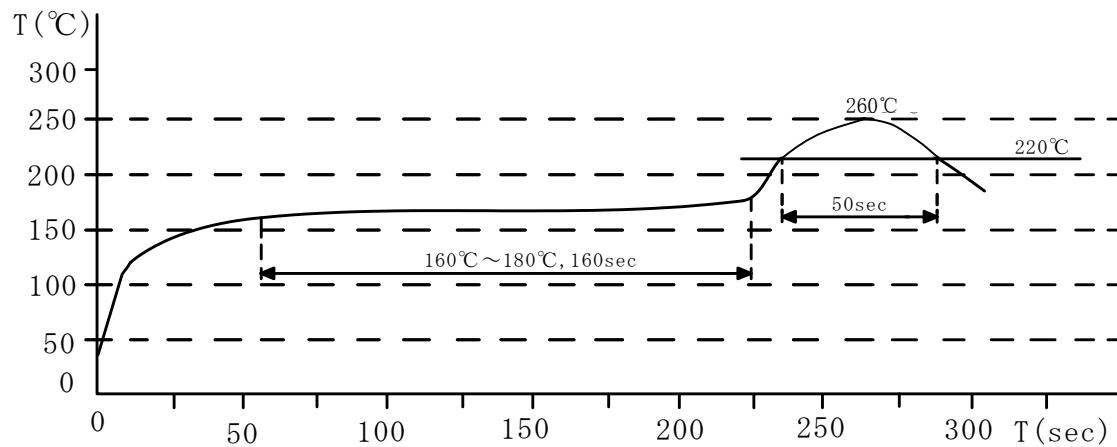
4-3. External appearance : No external defects can be found in the visual inspection.

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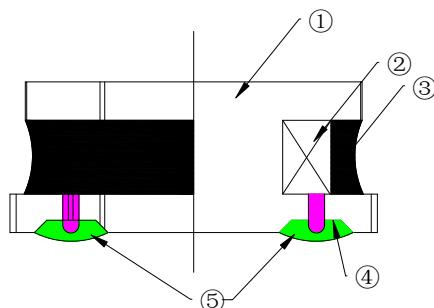
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4-7.Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^\circ\text{C}$ , and 1 hour storage under room ambient conditions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

## 5. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	MT
②	Wire	Polyurethane enameled copper wire	YLSL
③	Adhesive	Epoxy Resin Magnetic Powder	CH/DZ
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%	

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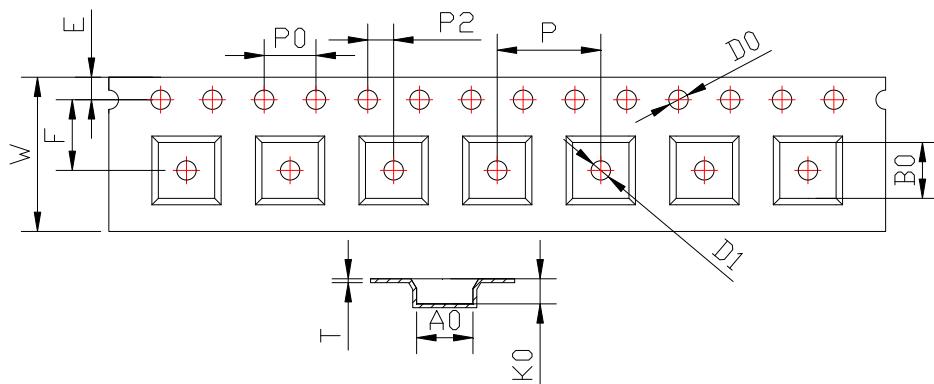
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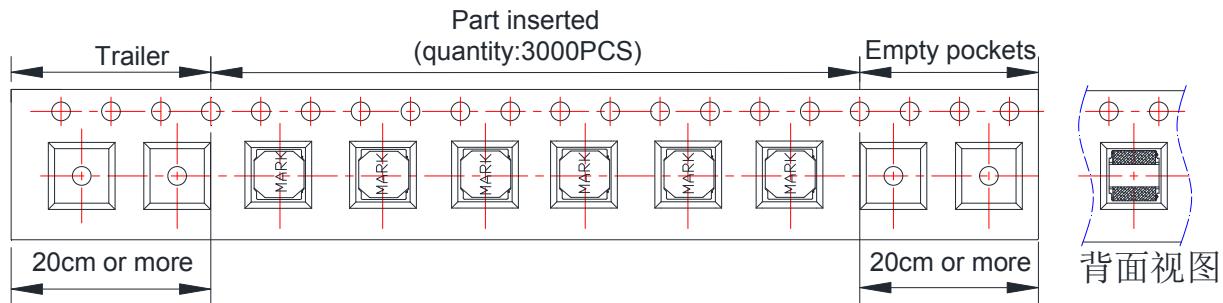
### 6.Packaging and Marking:

#### 6-1.Carrier Tape Dimensions:

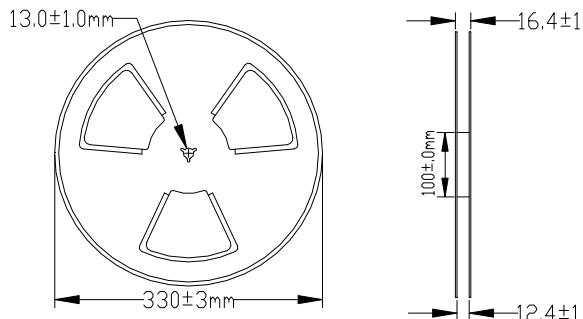


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.35	4.35	1.95	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

#### 6-2.Taping Dimensions:



#### 6-3.Reel Dimensions:



#### 6-4.Quantity:

3000PCS/盘(13寸盘)

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