SPECIFICATION FOR APPROVAL

承　　認　　書

CUSTOMER 客户名稱：	**NUMBER** 编号:　L099-1
DESCRIPTION 品　名：　**CR5020－121M**	**QUANTITY** 數量：50PCS
PART NO. 型　號：　**SMD POWER INDUCTORS**	**DATE** 日期：　**2021-10-19**
CUSTOMER PART NO. 客戶料號：	**NOTE** 注解：

APPROVAL SIGNATURE 客戶承認簽章

APPROVED BY 核　准	Checked By 審　查	DRAWN BY 制　作
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CUSTOMER:	SPECIFICATIONS （Revisions）	TYPE **CR5020–121M**

History of change

Rev.	Effective Date	Changed Contents	Change reasons	Approved By
A0	2021-10-19	New release	/	

SPECIFICATIONS

TYPE:

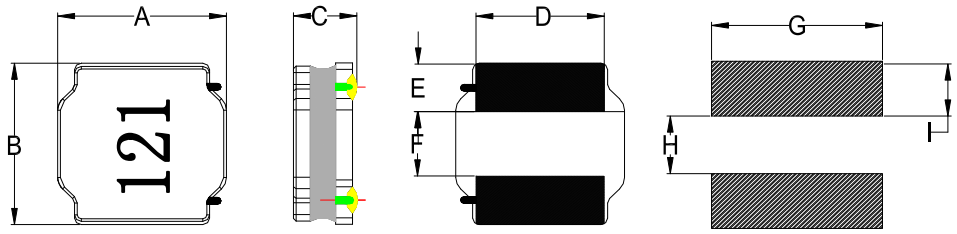
CR5020 - 121M

1. Scope

This specification apply for CR5020 of power inductors

2. Appearance

2-1.Dimensions(mm)

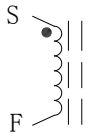


A	5.0 ± 0.2mm
B	5.0± 0.2mm
C	2.2mm MAX
D	4.0 ± 0.3mm
E	1.3± 0.3mm
F	2.4± 0.3mm
G	4.2mm
H	2.3mm
I	1.4mm

* 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	45.5Ts
Wire	ϕ0.09mm G1 P180

* Winding Turns are approx.

LEAD-FREE

RoHS Compliance

Note：	SPEC.NO.:
1. 线包涂胶。 2. 印黑色字体。	L099-1 2/6

3-3. Electronical characteristics

Item	Specifications	Measuring Conditions	Measuring Instrument
Inductance	120μH ±20%	100KHz/0.25V	HIOKI3532-50
D.C.R	1.35Ω± 30%	25℃	HIOKI3540
Isat※	0.42A	100KHz/0.25V	Microtest 6377&6220
Irise※	0.40A(ΔT=40℃)	25℃	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 ΔT=40℃ whichever is lower .(Ta=20℃)

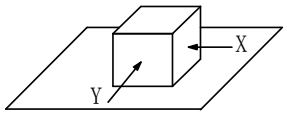
4. General Characteristics

4-1. Storage Temperature range : -40℃～ ＋105℃

4-2.Operating temperature range: －40℃ ～ ＋125℃ (Including coil's self temperature rise)

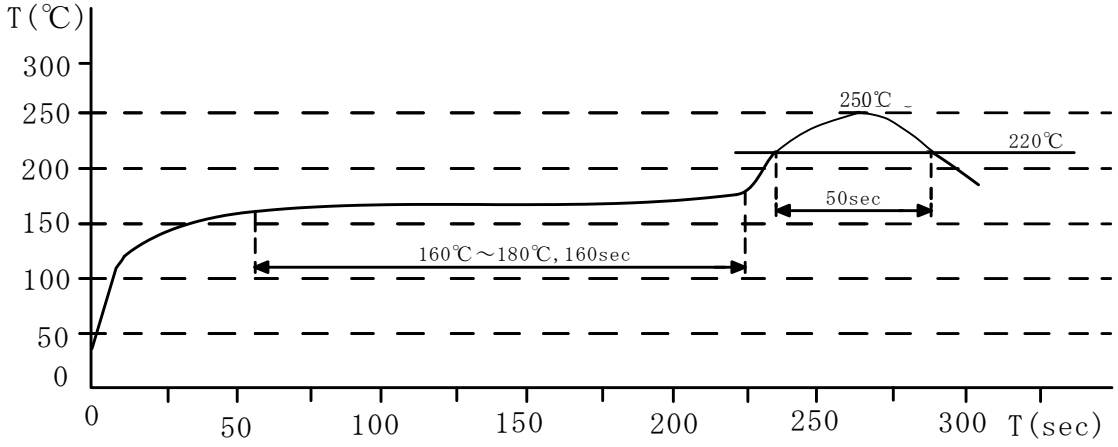
4-3.External appearance : No external defects can be found in the visual inspection.

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)



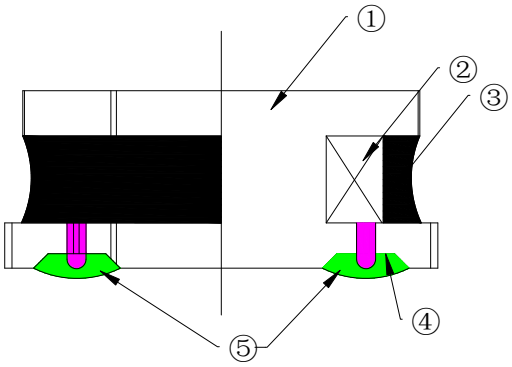
4-5.Vibration test : Inductance deviation is within ±10% after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down, right and left. The frequency is 10～55～10Hz and the amplitude of 1 minute cycle is 1.5mm PP.

4-6.Recommended reflow condition :



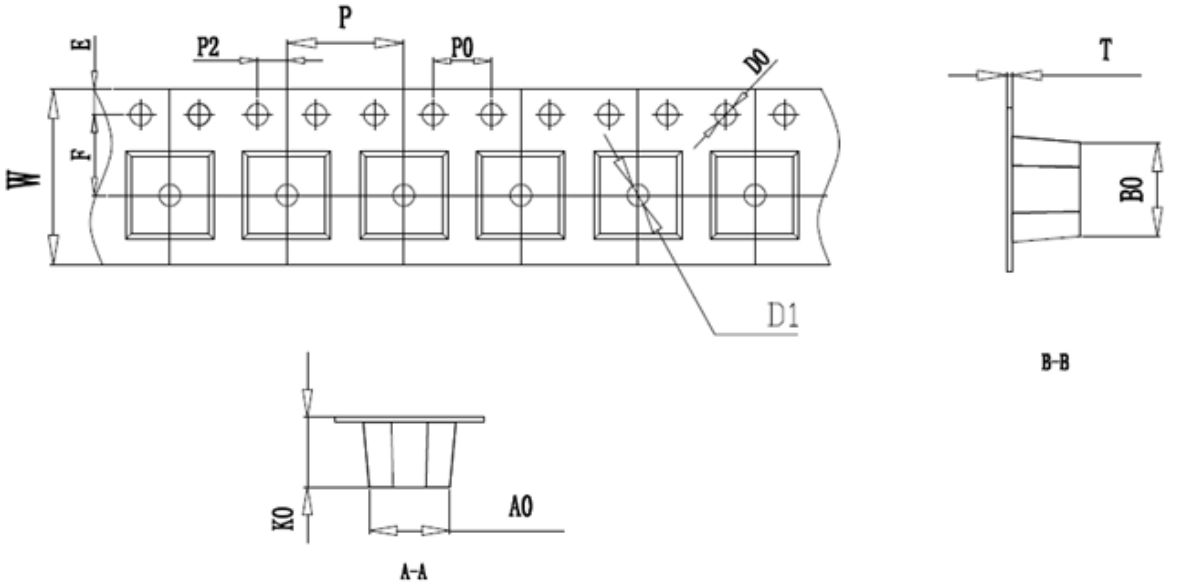
4-7.Humidity test : Inductance deviation is within ±5.0% after 96±4 hours test under the condition of relative humidity of 90～95% and temperature of 60±2℃, and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

5. Construction and materials

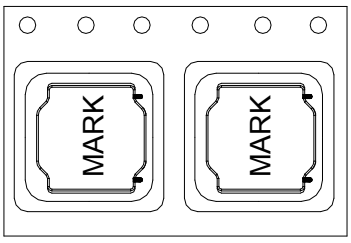


No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	CY/MT
②	Wire	Polyurethane enameled copper wire	3210200
③	Adhesive	Epoxy Resin Magnetic Powder	7001007
④	Plating Electrodes	Plating: Ag 10-20 μm Ni 1-3 μm Sn 3-7 μm	
⑤	Outer Electrodes	Top surface solder coating Sn99%、Ag0.3%、Cu0.7%	

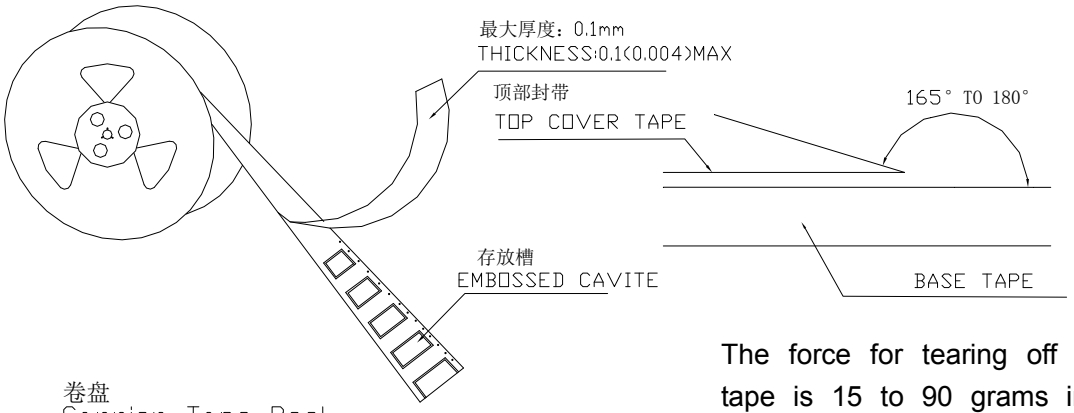
6. TAPE DIMENSIONS:



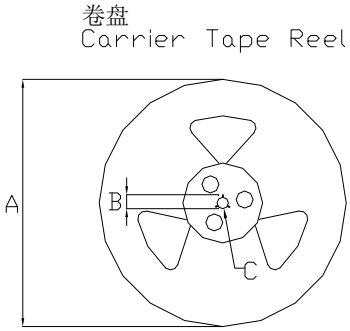
ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	12.00	5.4	5.4	2.2	8.00	5.50	1.75	1.50	4.00	2.00	0.35
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.15	±0.1	+0.1	±0.1	±0.1	±0.05

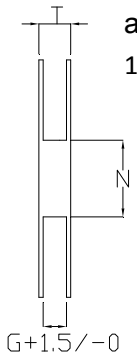


7. TAPE REEL DIMENSIONS：



The force for tearing off cover tape is 15 to 90 grams in the arrow direction/按箭头的方向施加 15 克至 90 克力撕开





单位：毫米

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

PACKAGING QUANTITY：

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