

# SPECIFICATION FOR APPROVAL

## 承 認 書

**CUSTOMER**

客戶名稱：

**NUMBER**

编号: L054

**DESCRIPTION**型 号： **CD54 系列****QUANTITY**

數量：30PCS

**PART NO.**品 名： **SMD POWER INDUCTORS****DATE**

日期：2023.07.04

**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

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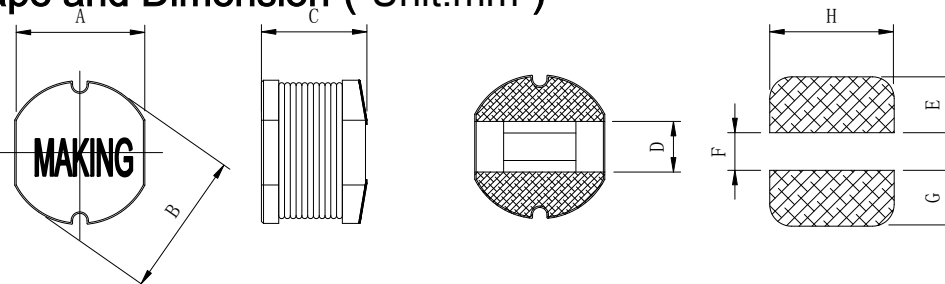
Fax: 0769-89135519



## History of change

Rev.	Effective Date	Changed Contents	Change reasons	Approved By
A0	2019.01.15	New release		

# 1. Shape and Dimension ( Unit:mm )



A	B	C	D	E	F	G	H
5.2 ± 0.3	5.8 ± 0.3	4.8Max	2.0 Ref	2.6 Ref	1.4 Ref	2.6 Ref	5.8 Ref

# 2. Electronic Characteristics List

Part Number	Inductance (μH)	Tolerance (±%)	DCR(Ω) (Max)	I.D.C ※ (A)	Marking	测试仪器
CD54-1R2N	1.2	30	13.0m	5.4	1R2	LCR : HIOKI3532 MICROTEST6337 DCR : HIOKI3540 DC BIAS : MICROTEST6220
CD54-1R5M	1.5	20	16.9m	4.7	1R5	
CD54-1R8M	1.8	20	19.5m	4.5	1R8	
CD54-2R2M	2.2	20	22.1m	4.0	2R2	
CD54-3R3M	3.3	20	31.2m	3.7	3R3	
CD54-3R9M	3.9	20	36.4m	3.2	3R9	
CD54-4R7M	4.7	20	52.0m	3.1	4R7	
CD54-5R6M	5.6	20	54.6m	2.8	5R6	
CD54-6R8M	6.8	20	60.0m	2.4	6R8	
CD54-8R2M	8.2	20	65.0m	2.0	8R2	
CD54-100K	10	10	76.0m	1.42	100	
CD54-120K	12	10	85.0m	1.38	120	
CD54-150K	15	10	105.0m	1.28	150	
CD54-180K	18	10	125.0m	1.22	180	
CD54-220K	22	10	150.0m	1.10	220	
CD54-270K	27	10	188.0m	0.95	270	
CD54-330K	33	10	215.0m	0.86	330	
CD54-390K	39	10	263.0m	0.78	390	
CD54-470K	47	10	355.0m	0.71	470	
CD54-560K	56	10	377.0m	0.66	560	
CD54-680K	68	10	390.0m	0.60	680	
CD54-820K	82	10	416.0m	0.57	820	
CD54-101K	100	10	611.0m	0.51	101	
CD54-121K	120	10	754.0m	0.47	121	
CD54-151K	150	10	845.0m	0.38	151	
CD54-181K	180	10	1.04	0.36	181	
CD54-221K	220	10	1.45	0.34	221	
CD54-271K	270	10	1.51	0.31	271	
CD54-331K	330	10	1.76	0.28	331	
CD54-391K	390	10	2.08	0.26	391	
CD54-471K	470	10	2.99	0.24	471	
CD54-561K	560	10	3.12	0.22	561	
CD54-681K	680	10	3.90	0.20	681	
CD54-821K	820	10	5.20	0.19	821	

※ This indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition or D.C current when temperature rise ΔT=40℃ whichever is lower .(Ta=20℃)  
 测试条件: (L≤8.2uH 用 100KHz / 0.25V; L>8.2uH 测试频率 1KHz / 0.25V.)

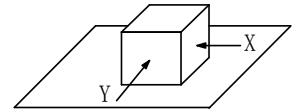
### 3. General Characteristics

3-1. Storage Temperature range :  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

3-2. Operating temperature range:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (Including coil's self temperature rise)

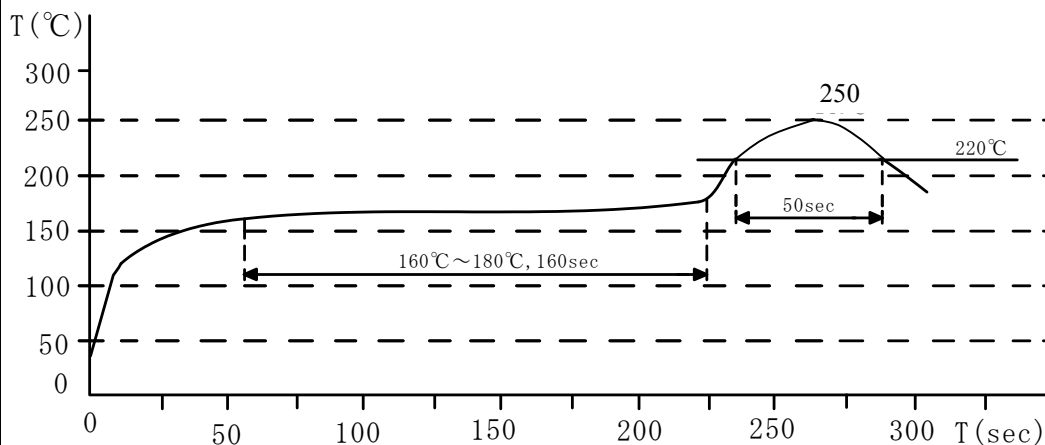
3-3. External appearance : No external defects can be found in the visual inspection.

3-4. 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)



3-5. Vibration test : Inductance deviation is within  $\pm 3.0\%$  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.

3-6. Recommended reflow condition:

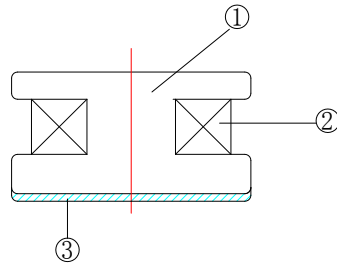


3-7. Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $40 \pm 2^{\circ}\text{C}$ , and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

**LEAD-FRE**



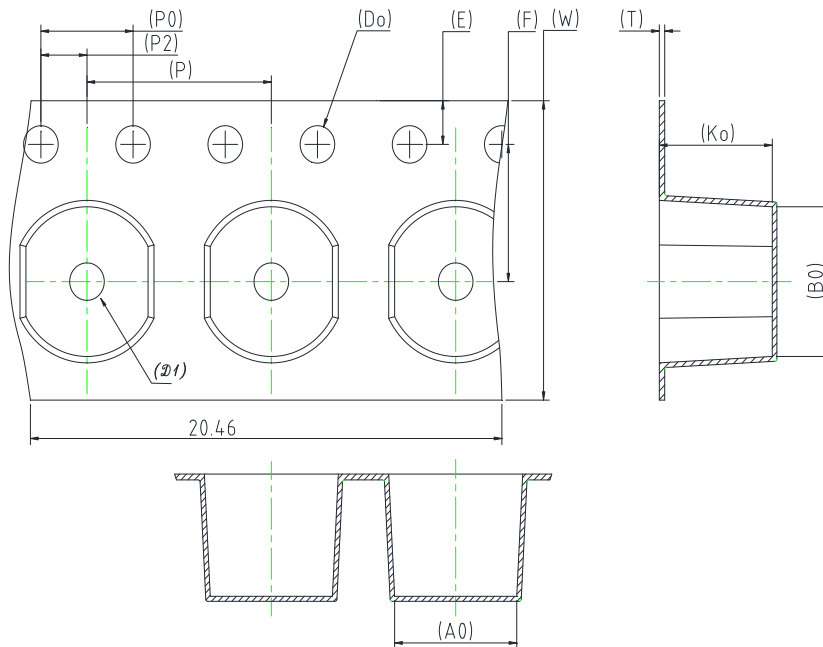
#### 4. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	(TY,DY)
②	Wire	Polyurethane enameled copper wire	3210250
③	Electrode	Cu + Sn plating	

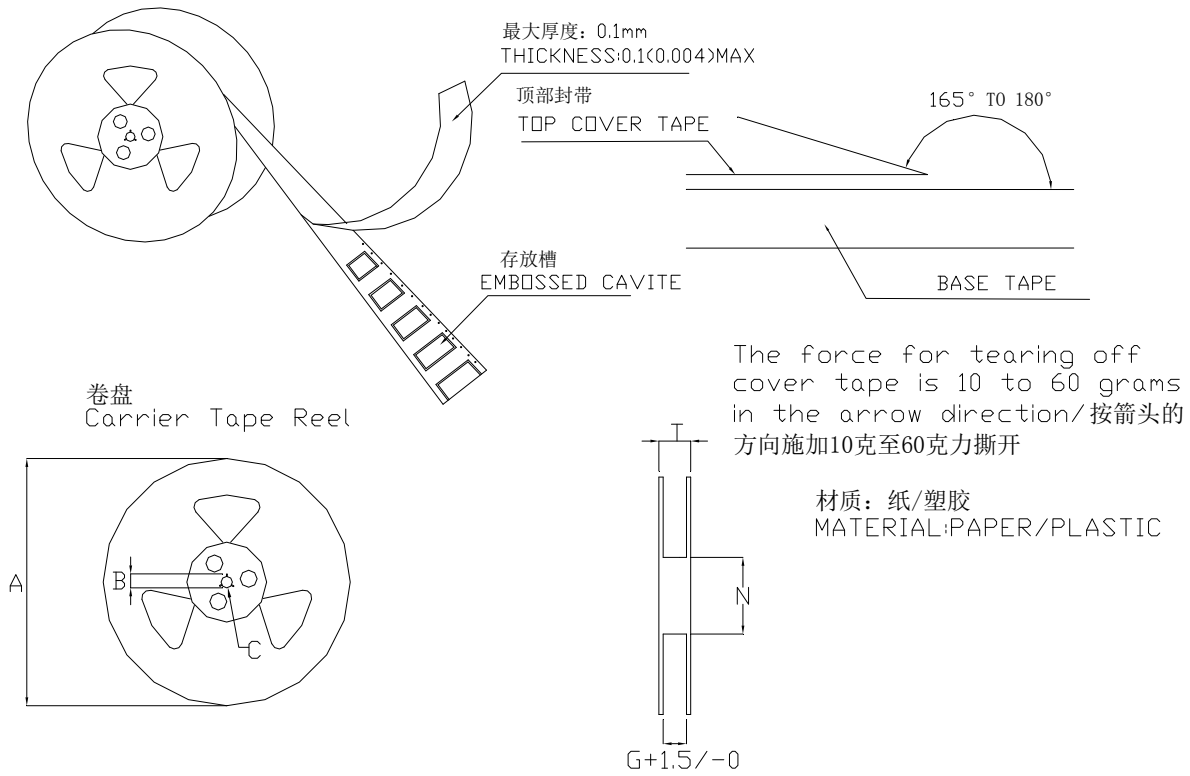
#### 5. Packaging and Marking:

5-1. Carrier Tape Dimensions:



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	5.5	6.05	4.85	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.50
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	MIN	±0.1	±0.1	±0.05

## 6. CARRIER REEL DIMENSIONS:



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

## 7. PACKAGE SPECIFICATION:

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

编带方向 , 如下图所示

