

Customer: 青岛鼎信

SPECIFICATIONS

Product Name: SMD Power Inductors

Customer
Part Number:

Dingxincheng
Part Number:

DXCD43-2R2MTF

Drawn No:

Version:

A

【For Customer Approval Only】

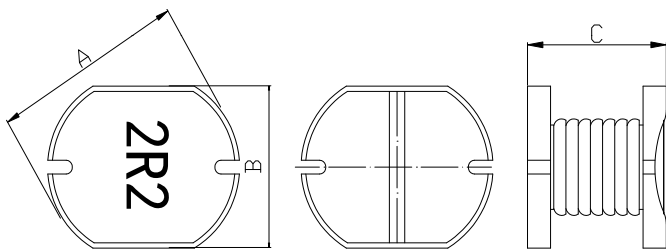
Approved By	Verified By	Re-checked By	Checked By

Shenzhen Dingxincheng Electronic Technology Co., Ltd

Approved By	Checked By	Issued By
王明	刘晓燕	刘磊

DATE: 2014.11.17

SPECIFICATION

CUSTOMER:		Page 2 of 8			
DXC P/N: DXCD43-2R2MTF		LOT NO : YP1411216			
<div>1.MECHANICAL DIMENSIONS DRAW NO:CD43</div> <div></div> <div>印章规格：2.0*1.7</div>		Item	Spec(mm)	Ref.	
		A	4.5±0.3		
		B	4.0±0.3		
		C	3.2±0.3		
		D			
		E			
		F			
		G			
		H			
		I			
		Marking:		Black Ink "2R2"	
		2.ELECTRICAL CHARACTERISTICS:			
Item	Spec	Ref.	Test Equipments		
L	2.2uH ±20%	2.32uH	HP4285A/CH1062		
Test Freq	L@421KHZ/1.0V				
L load	L+2.3A:L DROP 10%Max	2.36uH	CH1320+CH1062		
Test Freq	L@100KHZ/0.25V				
DCR	52mOHM	33.73mΩ	502BC		
Turn	10.5 (REF)				
Ope.Temp	-40 TO 85℃				
CUSTOMER APPROVED		APPROVED	CHECKED	DRAWN	
ISSUE DATE 14/Nov/14		PRINT DATE: 14/Nov/14	REV:1.0		

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SPECIFICATION

CUSTOMER: Page 3 of 8

DXC P/N: DXCD43-2R2MTF LOT YP1411216

3.MAIN MATERIALS & SUPPLIERS:

Item	Suppter
FN381 DRC-4.5-4.0-3.2-2.0C	标旗
G1-H Φ 0.26mm (P180)	益利素勒
3-PF604-B	升贸 (锡)
4-黑色	鸿领 (油墨)

4.PACKAGING MATERIALS & SUPPLIERS:

5-REEL-13"xW12MM	德昌
5-CARRIER-CD43	德昌(透明)
5-COVER-9.3MM	德昌(透明自粘)

5.NOTES:

	APPROVED	CHECKED	DRAWN

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TEST REPORT

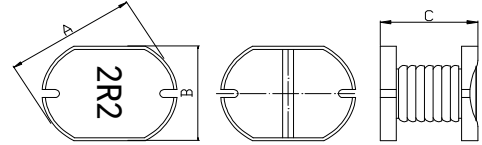
Page 4 of 8

CUSTOMER : DXCD43-2R2MTF

14/Nov/14

LOT NO :
 QUANTITY : 10
 TEST FREQ.: L@421KHz/1.0V
 COIL DESCRIPTION :
 WIRE : 0.26 mm TURN : 10.5 Ts
 TEMP: 25 °C HUMI: 10 %

SHAPE :



ELECTRICAL CHARACTERISTICS AND MECHANICAL DIMENSIONS (m/m) :

ITEM	L	DCR	L+3.0A		DROP	A	B	C	D	E
SPEC	2.2uH	52mΩ	0A	+3.0A	10%Max	4.5±0.3	4.0±0.3	3.2±0.3		
TOL.	±20%	MAX								
1	2.27	35.20	2.38	2.32	2.52%	4.43	3.98	3.30		
2	2.33	37.20	2.37	2.31	2.53%	4.45	3.97	3.29		
3	2.30	33.50	2.40	2.34	2.50%	4.43	3.97	3.27		
4	2.35	32.20	2.38	2.32	2.52%	4.43	3.97	3.27		
5	2.33	33.40	2.39	2.33	2.51%	4.44	3.98	3.28		
6	2.32	34.10	2.36	2.32	1.69%	4.47	3.98	3.27		
7	2.35	32.40	2.38	2.32	2.52%	4.49	3.99	3.29		
8	2.30	33.50	2.38	2.32	2.52%	4.48	3.99	3.27		
9	2.28	33.40	2.39	2.33	2.51%	4.49	4.01	3.29		
10	2.32	32.40	2.38	2.32	2.52%	4.46	3.98	3.27		
Max	2.35	37.20	2.40	2.34	2.53%	4.49	4.01	3.30		
Min	2.27	32.20	2.36	2.31	1.69%	4.43	3.97	3.27		
\bar{X}	2.32	33.73	2.38	2.32	2.44%	4.46	3.98	3.28		
JUDGE	OK	OK	OK	OK	OK	OK	OK	OK		

PS:

APPROVED INSPECTED

徐舒霞

吴娟艳

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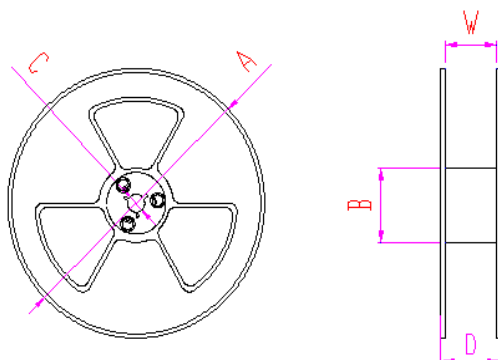
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CUSTOMER :

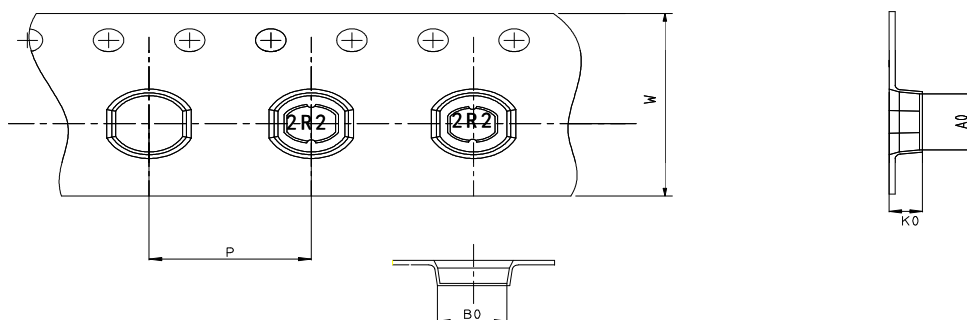
Page 5 of 8

DATE : 14/Nov/14

1. 每卷轴包装数量:2000PCS/R (开始与结尾留空20~40cm不装COIL), 贴上正确的标签,卷轴及载带尺寸.如图(一)

卷轮尺寸 (REEL DIMENSIONS) 一般公差 $\pm 0.5\text{mm}$

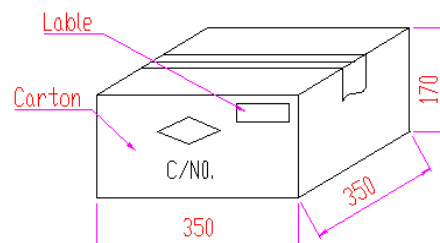
A	B	C	W	D
$\Phi 330$	$\Phi 100$	$\Phi 13.5$	12	15.5



载带尺寸(TAPE DIMENSIONS):

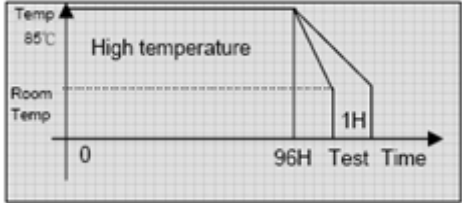
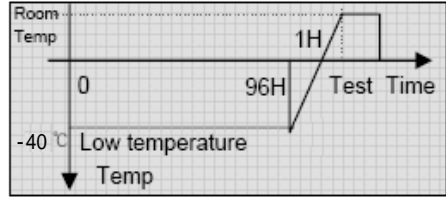
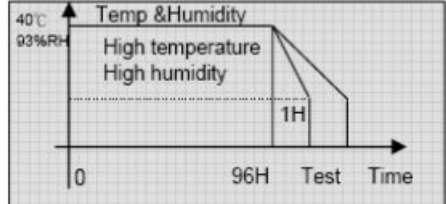
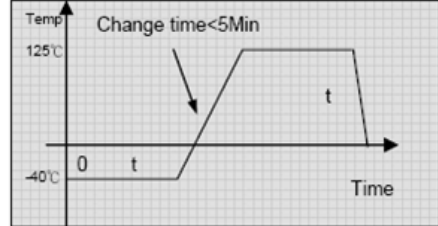
W	A0	B0	K0	P							
12.00	4.25	5.60	3.50	8.00							

3. 每箱包装数量可依照客户要求。



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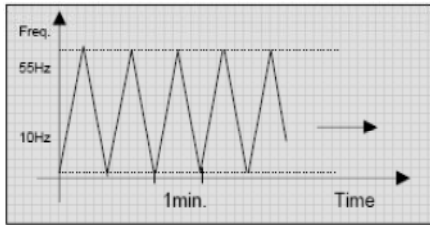
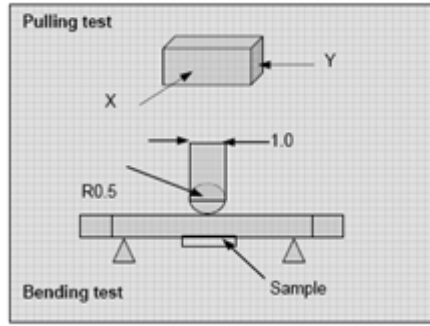
Environmental tests (环境试验)	Item(项目)	Required Characteristics(要求)	Test Method / Condition(测试方法)
	High temperature Storage test Reference documents: MIL-STD-202G Method 108A 高温储存试验	1.No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta DCR/DCR \leq 10\%$ 1.无明显的外观缺陷 2.电感量变化不超过10% 3.品质因素变化不超过30% 4.直流电阻变化不超过10%	Temperature: $85 \pm 2^\circ\text{C}$ Time : 96 ± 2 hours Tested not less than 1 hour, nor more than 2 hours at room temp  温度: $85 \pm 2^\circ\text{C}$ 时间: 96 ± 2 小时 样品在室温下放置1小时,不超过2小时内进行测试.
	Low temperature Storage test Reference documents: IEC 68-2-1A 6.1 6.2 低温储存试验	1.No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta DCR/DCR \leq 10\%$ 1.无明显的外观缺陷 2.电感量变化不超过10% 3.品质因素变化不超过30% 4.直流电阻变化不超过10%	Temperature: $-40 \pm 2^\circ\text{C}$ Time : 96 ± 2 hours Tested not less than 1 hour, nor more than 2 hours at room temperature.  温度: $-40 \pm 2^\circ\text{C}$ 时间: 96 ± 2 小时 样品在室温下放置1小时,不超过2小时内进行测试.
	Humidity test Reference documents: MIL-STD-202G Method 湿度测试	1.No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta DCR/DCR \leq 10\%$ 1.无明显的外观缺陷 2.电感量变化不超过10% 3.品质因素变化不超过30% 4.直流电阻变化不超过10%	1. Dry oven at a temperature of $40^\circ \pm 5^\circ\text{C}$ for 24 hours. 2. Measurements At the end of this period 3. Exposure: Temperature: $40 \pm 2^\circ\text{C}$, Humidity: $93 \pm 3\% \text{RH}$  1.样品必须先在 $40 \pm 5^\circ\text{C}$ 条件下干燥24小时 2.干燥后测试 3.试验条件: 温度: $40 \pm 2^\circ\text{C}$, 湿度: $93 \pm 3\% \text{RH}$ 时间 : 96 ± 2 hours 4.试验结束后,在试验箱中进行测试. 5.样品在室温下放置1小时,不超过2小时内进行测试.
	Thermal shock test Reference documents: MIL-STD-202G Method 107G 热冲击测试	1.No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta DCR/DCR \leq 10\%$ For T: weight $\leq 28\text{g}$: 15Min; 28g \leq weight $\leq 136\text{g}$: 30Min 1.无明显的外观缺陷 2.电感量变化不超过10% 3.品质因素变化不超过30% 4.直流电阻变化不超过10%	First -40°C for T time, last 125°C T time as 1 cycle. Go through 20 cycles.  从 -40°C 作用T分钟,然后温度冲击到 125°C 作用T分钟,作为一个循环,共作用20次.

RELIABILITY TEST CONDITIONS

FOR SMT/SMD PRODUCTS

Page 7 of 8

Physical characteristic tests (物理特性试验)

Item(项目)	Required Characteristics(要求)	Test Method / Condition(测试方法)
Solderability test Reference documents: MIL-STD-202G Method 208H IPC J-STD-002B 可焊性测试	Terminals area must have 95% min. solder coverage 端子上锡率95%以上	1. Dip pads in flux then dip in solder pot at $245\pm 5^{\circ}\text{C}$ for 5 seconds. 2. Solder: Sn(99.3)/Cu(0.7) 3. Flux: rosin flux 1. 端子浸入助焊剂,然后浸入 $245\pm 5^{\circ}\text{C}$ 锡炉中5秒钟 2. 焊料: Sn(99.3)/Cu(0.7) 3. 助焊剂: 松香助焊剂
Heat endurance of Reflow soldering Reference documents: IPC J-STD-020B 回流焊测试	1. No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta \text{DCR}/\text{DCR} \leq 10\%$ 1. 无明显的外观缺陷 2. 电感量变化不超过10% 3. 品质因素变化不超过30% 4. 直流电阻变化不超过10%	1. Refer to the next page reflow curve Go through 3 times 2. The peak temperature : $245\pm 5^{\circ}\text{C}$ 1. 参照下页回流焊曲线过三次 2. 峰值温度为: $245\pm 5^{\circ}\text{C}$
Vibration test Reference documents: MIL-STD-202G Method 201A 振动测试	1. No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta \text{DCR}/\text{DCR} \leq 10\%$ 1. 无明显的外观缺陷 2. 电感量变化不超过10% 3. 品质因素变化不超过30% 4. 直流电阻变化不超过10%	Apply frequency 10~55Hz. 0.75mm amplitude in each of perpendicular direction for 2 hours. (total 6 hours)  振动频率: 10~55Hz, 振幅: 0.75mm, 沿X,Y,Z方向各振动2小时.(共6小时)
Drop test Reference documents: MIL-STD-202G Method 2000 跌落试验	1. No case deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta \text{DCR}/\text{DCR} \leq 10\%$ 1. 无明显的外观缺陷 2. 电感量变化不超过10% 3. 品质因素变化不超过30% 4. 直流电阻变化不超过10%	Packaged & Drop down from 1m with 981m/s ² (100G) attitude In 1 angle 1 ridges & 2 surfaces orientations. 将产品包装后从1米高度自然落至试验板上 跌落方向为两个表面方向的一个棱面的一个棱角
Terminal strength push test Reference documents: JIS C 5321 :1997 端子强度试验	Pulling test: Define: A: sectional area of terminal $A \leq 8\text{mm}^2$ force $\geq 5\text{N}$ time: 30sec Bending test: Soldering the products on PCB, after the pulling test and bending test ,terminal should not pull off 推力测试: 定义: A: 焊接端子截面积 $A \leq 8\text{mm}^2$ 推力 ≥ 5 牛顿 时间: 30秒钟 $8\text{mm}^2 < A \leq 20\text{mm}^2$ 推力 ≥ 10 牛顿 时间: 10秒钟 $20\text{mm}^2 < A$ 推力 ≥ 20 牛顿 时间: 10秒钟 弯折测试: 将产品焊接在PCB上, 分别经过推力测试和弯折测试	Bend the testing PCB at middle point, the deflection shall be 2mm  将PCB对重弯折, 到达抗度2mm.
Resistance to solvent test Reference documents: IEC 68-2-45:1993 耐溶剂性试验	No case deformation or change in appearance, or obliteration of marking 无外观破坏及标记破损	To dip parts into IPA solvent for $5\pm 0.5\text{Min}$, then drying them at room temp for 5Min, at last ,to brushing making 10 times. 在IPA溶剂中浸泡 5 ± 0.5 分钟, 室温下干燥5分钟, 然后擦拭10次.

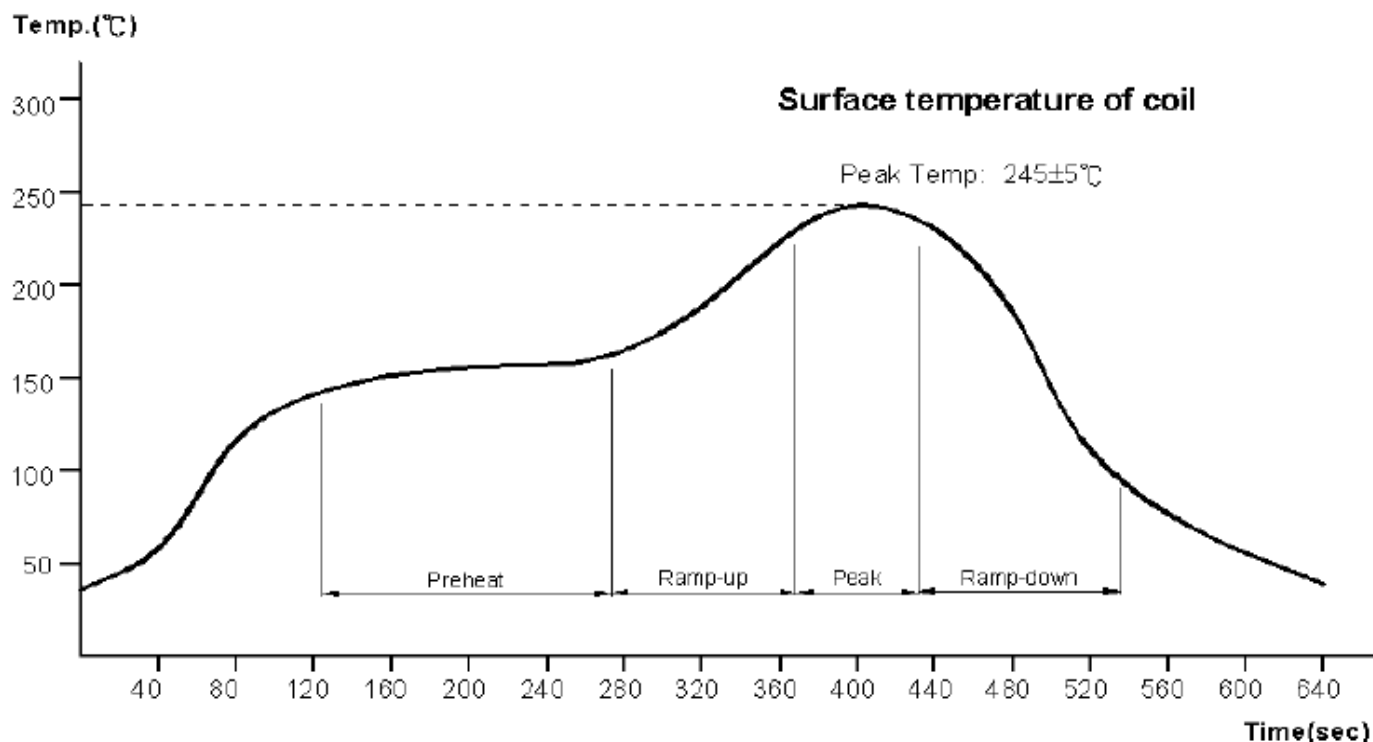
RELIABILITY TEST CONDITIONS

FOR SMT/SMD PRODUCTS

Page 8 of 8

Electrical Characteristic tests (电特性试验)	Item(项目)	Required Characteristics(要求)	Test Method / Condition(测试方法)
	Electronic characteristic test of major products 主要产品电特性测试	Refer to catalogue of specific products 参照具体产品目录页	Refer to catalogue of specific products 参照具体产品目录页
	Overload test Reference documents: JIS C5311-6.13 过负荷试验	1.During the test no smoke, no peculiar,smell, no fire 2.The characteristic is normal after test 1.试验过程中无冒烟、异味、着火等; 2.试验后产品特性正常.	Apply twice as rated current for 5 minutes. 通过两倍额定电流5分钟
	voltage resistance test Reference documents: MIL-STD-202G Mthod 301 绝缘耐压测试	1.During the test no breakdown 2.The characteristic is normal after test 1.实验过程中无击穿 2.试验后产品特性正常	1.For parts with two coils 2.DC1000V,Current:1mA,Time:1Min. 1.只针对SMT二绕组以上 2.电压DC1000V,电流1mA,时间1分钟.

Curve of Heat endurance of Reflow soldering test



A test is made under the conditions mentioned above. And it is left 1 hours in the normal temperature and humidity. After that, no mechanical and electrical defeat should be found out.

The reflow condition is according to the machine used by our company.