



深圳圣融达科技有限公司

SHENZHEN SINCERITY TECHNOLOGY CO., LTD.

**RoHS
REACH**

产品规格承认书

Product Specification for Approval

客户名: 立创商城
Customer:

产品品名: 双面金属化聚丙烯膜电容器(C81)
Description: Double -sided metallized polypropylene film capacitor

规格型号: PPSS-124J1600VDC
Specifications:

圣融达料号: C81124J3C2612211A0
Sincerity P/N:

客户料号: C81124J3C2612211LC
Customer P/N:

产品品牌: 圣融达 (SRD)
Product Brands:

制作日期: 2023-6-25
Production Date:

客户承认 Customer's Approval			圣融达科技有限公司 Sincerity Approval		
接收 Receive	审核 Checked	批准 Approved	制作 Producer	审核 Checked	工程部 Approved
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修改记录

Change Record

双面金属化聚丙烯膜电容器(C81)

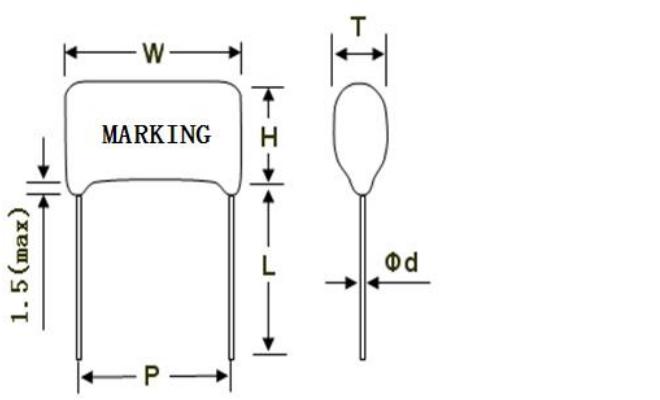
Double -sided metallized polypropylene film capacitor

1、产品特点及主要用途Product characteristics and application

该系列电容器采用聚丙烯膜作介质，用真空蒸发方法将铝沉积在薄膜正反面上作电极卷绕而成；该系列电容器采用环氧粉末包封，高频损耗小，内部温升小、自愈性好、可靠性高，适用于高压高频脉冲电路中，变频器的谐振电路中，LED驱动高效电路和开关电源高效电路中，吸收和SCR整流电路中。

This series capacitors use polypropylene film as medium, vacuum deposition method is used to deposit aluminum on the front and back of the film for electrode winding; the series of capacitors are vacuum potted epoxy resin, molded case type. low loss, small internal temperature rise, good self-healing, high reliability, suitable for high-voltage high-frequency pulse circuit, in the resonant circuit of the inverter, led drive high-efficiency circuit and switching power supply high-efficiency circuit, Absorption and SCR rectifier circuits.

2、外形图Outline Drawing



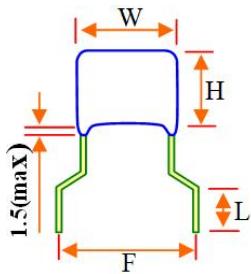
标志示例Marking Example

 PPSS

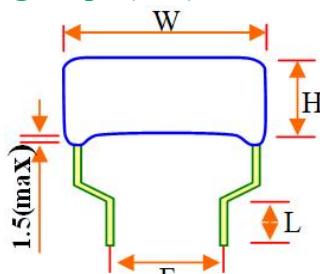
124J1600V

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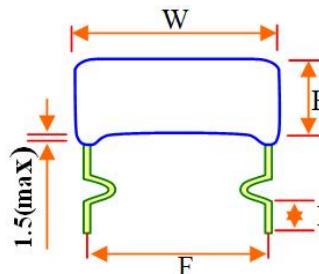
3、引线加工图形Lead forming shape (mm)



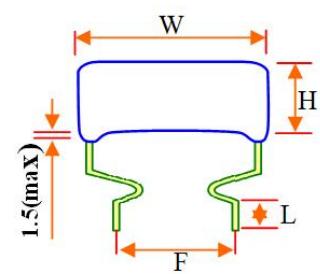
图号Drawing No.1



图号Drawing No.2



图号Drawing No.3



图号Drawing No.4

4、技术参数Specification

参照标准Reference Standard	GB/T 10190	
工作温度范围 Operation Temperature Range	$-40^{\circ}\text{C} \sim 105^{\circ}\text{C}$ ($85\sim 105^{\circ}\text{C}$ decrease factory $1.25\%U_{\text{R}}$ per $^{\circ}\text{C}$ for U_{R})	
额定电压 Rated Voltage	450V, 630V, 1000V, 1250V, 1600V, 2000V, 3000V	
电容量范围 Capacitance Range	$0.001\mu\text{F} \sim 1.0\mu\text{F}$	
电容量偏差Capacitance Tolerance	$\pm 5\%$ (J)、 $\pm 10\%$ (K)、 $\pm 20\%$ (M)(20°C , 1kHz)	
耐电压 Voltage Proof	引线之间Between Terminals	$1.6U_{\text{Rd}}$ (VDC), 5s
绝缘电阻Insulation Resistance	$C_{\text{R}} \leq 0.33\mu\text{F}$, $R \geq 30000\text{ M}\Omega$ $C_{\text{R}} > 0.33\mu\text{F}$, $RC \geq 10000\text{S}$ (20°C , 1min)	$U_{\text{R}} \leq 500\text{V}$, test voltage:100V, $U_{\text{R}} > 500\text{V}$, test voltage:500V
损耗角正切Dissipation Factor	$\text{tg}\delta \leq 0.0010$ (1kHz)	

5、产品代码及编写说明: Part number code rules

C	8	1	1	2	4	J	3	F	2	6	1	0	1	7	8	A	0
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

第1~3位Digit 1 to 3	电容器型号代码Series code	第4~6位Digit 4 to 6	标称电容量代码 Rated capacitance code
C81=PPSS		ABC=AB×10 ^C pF Example 124=12×10 ⁴ pF=0.12μF	
第7位Digit 7	电容量偏差代码 Capacitance tolerance code	第8~9位Digit 8 to 9	额定电压代码 Rated voltage code
J=±5%, K=±10%, M=±20%		2G=400V, 2W=450V, 2J=630V, 3A=1000V	
第10~15位Digit 10 to 15	外形尺寸代码Dimension code	第16位Digit 16	线径代码 Line diameter code
第17~18位Digit 15 to 18	特殊码Special code		

6、产品尺寸及性能参数: Product Dimension and Characteristic Data

圣融达料号	客户料号	额定电压	标称容量 Cap	容量偏差 Tolerance	外形尺寸(mm) Dimension(mm)						
					W max	T max	H max	P ±0.5	d ±0.05	L min	
C81124J3C2612211A0	C81124J3C2 612211LC	1600VDC	0.12uF	J(±5%)	25	12.5	20.5	22	1.0	20	
备注:	棕红色										

7、品质保证（产品出厂检查）试验: Quality ensuring test (before shipment):

检查项目 (每批) Inspection item (each batch)	技术要求	检查水平IL	接收质量限AQL
		GB 2828一次正常抽样方案	
外观检查 Appearance inspection	标志正确, 清晰可读, 无明显损伤, 针孔气泡, 引出线无严重损伤。Marking is correct, clearly readable, No obvious damage, pinhole bubbles, There was no serious damage to the lead.	II	1.0
外形尺寸 Dimensions	按本文件第6条Refer to item 6		
电容量 Capacitance			
损耗角正切 Dissipation Factor			
耐电压 Dielectric strength	按本文件第4条Refer to item 4	II	0.25*
绝缘电阻 Insulation resistance			
可焊性 Solder ability	按本文件第8.1条Refer to item 8.1	S-3	1.0
*: 耐电压不允许失效 Voltage proof failure is not allowed			

8、试验方法及性能 Test Method And Performance

No.	项目 project	性能要求 Performance requirements	试验方法 (GB/T 10190) experiment method
8.1	可焊性 Solder ability	上锡面积90%以上 More than 90% of the tin area	方法1method 1 焊料温度Solder temperature: 245±5°C 浸渍时间Immersion time: 2.0±0.5s
8.2	初始测量 Initial measurement	电容量capacitance 损耗角正切DF: $C_R \leq 1\mu F$, Test frequency: 10kHz $C_R > 1\mu F$, Test frequency: 1kHz	
	引出端强度 Terminal strength	外观无可见损伤 There shall be no visible damage	拉力试验Ual: 拉力: $0.5 < \varphi d \leq 0.8$ mm: 10N, $d > 0.8$ mm: 20N 弯曲试验Ub: 每个方向上进行二次弯曲 Tensile test Ual: Tension: $0.5 < \varphi d \leq 0.8$ mm; 10N, $d > 0.8$ mm: 20N Bend: test Ub: secondary bending in each direction
	耐焊接热 Resistance to solder heat		方法1A: $260 \pm 5^\circ C$, 5s method 1A : $260 \pm 5^\circ C$, 5s
8.3	最后测量 Final measurement	外观无可见损伤There shall be no visible damage 电容量变化: $\Delta C/C \leq \pm 3\%$ 损耗角正切增加: $C_R \leq 1\mu F \leq 0.004$ (10kHz) $C_R > 1\mu F \leq 0.004$ (1kHz) Capacitance: $\Delta C/C \leq \pm 3\%$ (relative to the initial value) Increase of $\tg\delta$: $C_R \leq 1\mu F \Delta \tg\delta \leq 0.004$ (10kHz) $C_R > 1\mu F \Delta \tg\delta \leq 0.004$ (1kHz)	
	初始测量 Initial measurement	电容量capacitance 损耗角正切DF: $C_R \leq 1\mu F$, Test frequency: 10kHz $C_R > 1\mu F$, Test frequency: 1kHz	
	温度快速变化 Rapid temperature change	外观无可见损伤 There shall be no visible damage	$T_A = -40^\circ C$, $T_B = +105^\circ C$ 5次循环, 持续时间: $t = 30\text{min}$ 5 cycles, duration: $t = 30\text{min}$
	振动vibration	外观无可见损伤 There shall be no visible damage	振幅0.75mm或加速度98m/s ² (取严酷度较小者), 频率10~500Hz三个方向, 每个方向2h, 共6h Amplitude 0.75mm or acceleration 98m/s ² (slightly less severe), frequency 10~500Hz three sides Direction, 2h in each direction, total 6h
	碰撞 Bump		4000次, 加速度400 m/s ² , 脉冲持续时间: 6ms 4000 times, acceleration 400 m / s ² , Pulse duration: 6ms
8.4	最后测量 Final measurement	观无可见损伤There shall be no visible damage 电容量变化: $\Delta C/C \leq \pm 3\%$ 损耗角正切增加: $C_R \leq 1\mu F \leq 0.004$ (10kHz) $C_R > 1\mu F \leq 0.004$ (1kHz) 绝缘电阻 IR: \geq 额定值的50% Capacitance: $\Delta C/C \leq \pm 3\%$ (relative to the initial value) Increase of $\tg\delta$: $C_R \leq 1\mu F \Delta \tg\delta \leq 0.004$ (10kHz) $C_R > 1\mu F \Delta \tg\delta \leq 0.004$ (1kHz) I.R.: $\geq 50\%$ of the rated value	

NO.	项目 project	性能要求 Performance requirements		试验方法 (GB/T 10190) Test method
8.4	气候顺序 climate sequence	初始测量 Initial measurement	按8.2或8.3的最终测量 Refer to item 10.2 and 10.3 final measurement	
		干热Dry heat		+105°C, 16h
		循环湿热 Damp heat, Cyclic		试验Db, 严酷度b, 第一次循环 Test Db, severity b, First cycle
		寒冷cold		-40°C, 2h
		循环湿热 Damp heat, Cyclic		试验Db, 严酷度b, 剩余循环 Test Db, severity b, the other cycles,
8.4	最后测量 Final measurement	外观无可见损伤, 标志清晰, 电容量变化: $\Delta C/C \leq 5\%$, 损耗角正切增加: $C_R \leq 1\mu F \Delta \tg\delta \leq 0.005$ (10kHz) $C_R > 1\mu F \Delta \tg\delta \leq 0.005$ (1kHz) 耐电压: U_R , 1min无击穿或飞弧, 绝缘电阻 IR: \geq 额定值的50% There shall be no visible damage, legible marking $\Delta C/C \leq 5\%$ (relative to the initial value) Increase of $\tg\delta$: $C_R \leq 1\mu F \Delta \tg\delta \leq 0.005$ (10kHz) $C_R > 1\mu F \Delta \tg\delta \leq 0.005$ (1kHz) Voltage proof: Applying U_R , 1min no breakdown and flashover I.R.: $\geq 50\%$ of the rated value		
8.5	稳态湿热 Damp heat steady state	外观无可见损伤, 标志清晰, 电容量变化: $\Delta C/C \leq 5\%$, 损耗角正切增加: $\Delta \tg\delta \leq 0.002$ (1kHz), 耐电压: U_R , 1min无击穿或飞弧, 绝缘电阻 IR: \geq 额定值的50% There shall be no visible damage, legible marking $\Delta C/C \leq 5\%$ (relative to the initial value) Increase of $\tg\delta$: $\Delta \tg\delta \leq 0.002$ (1kHz) Voltage proof: Applying U_R , 1min no breakdown and flashover I.R.: $\geq 50\%$ of the rated value		温度: $40 \pm 2^\circ C$ 湿度: 93 (+2/-3) %RH 持续时间: 21天 Temperature: $40 \pm 2^\circ C$ Humidity: 93 (+2/-3)% rh Duration: 21 days
8.6	耐久性 Endurance	外观无可见损伤, 标志清晰, 电容量变化: $\Delta C/C \leq 5\%$, 损耗角正切增加: $C_R \leq 1\mu F \Delta \tg\delta \leq 0.004$ (10kHz) $C_R > 1\mu F \Delta \tg\delta \leq 0.004$ (1kHz) 绝缘电阻 IR: \geq 额定值的50% There shall be no visible damage, legible marking $\Delta C/C \leq 5\%$ (relative to the initial value) Increase of $\tg\delta$: $C_R \leq 1\mu F \Delta \tg\delta \leq 0.004$ (10kHz) $C_R > 1\mu F \Delta \tg\delta \leq 0.004$ (1kHz) no breakdown and flashover I.R.: $\geq 50\%$ of the rated value		105°C, $1.25U_R$, 1000h

NO.	项目 project	性能要求 Performance requirements	试验方法 (GB/T 10190) Test method
8.7	随温度而定的特性 Temperature characteristic	<p>在b, d, f点上进行电容量测量: 在下限类别温度-40°C时的特性: $0 \leq (C_b - C_d) / C_d \leq +3\%$</p> <p>在上限类别温度105°C时的特性: $-4.0\% \leq (C_f - C_d) / C_d \leq 0$</p> <p>在f点上测量绝缘电阻: $IR \geq 2500M\Omega \quad C_R \leq 0.33\mu F$ $IR \geq 750s \quad C_R > 0.33\mu F$</p> <p>Measuring capacitance at test point b, d, f: Characteristic at lower category temperature -40°C: $0 \leq (C_b - C_d) / C_d \leq +3\%$</p> <p>Characteristic at upper category temperature +105°C: $-4.0\% \leq (C_f - C_d) / C_d \leq 0$</p> <p>I.R. (test at point f): $IR \geq 2500M\Omega \quad C_R \leq 0.33\mu F$ $IR \geq 750s \quad C_R > 0.33\mu F$</p>	<p>静态法, 电容器依次保持在下述每个温度: a.(20±2) °C, b.(-40±3) °C, d.(20±2) °C, f.(105±2) °C, g.(20±2) °C</p> <p>Static method: The Capacitors should be kept at the following temperature in turn: a(20±2) °C, b(-40±3) °C, d(20±2) °C, f(105±2) °C, g(20±2) °C</p>
8.8	充电和放电 Charging and discharging	<p>电容量变化: $\Delta C/C \leq 5\%$, 损耗角正切增加: $C_R \leq 1\mu F \leq 0.005$ (10kHz) $C_R > 1\mu F \leq 0.005$ (1kHz) $\Delta C/C \leq 10\%$ (relative to the initial value)</p> <p>Increase of $\tan\delta$: $C_R \leq 1\mu F \quad \Delta \tan\delta \leq 0.005$ (10kHz) $C_R > 1\mu F \quad \Delta \tan\delta \leq 0.005$ (1kHz)</p>	<p>Ref.item4.13 次数: 10000次 充电持续时间: 0.5S 放电持续时间: 0.5S 充电电压为额定电压 充电电阻: $220/CR$ (Ω) 或 20Ω (取较大者) CR为标称电容量 (μF) Number of times: 10,000 times Charging duration: 0.5s Discharge duration: 0.5s Charging voltage is rated voltage Charging resistance: $220/cr(\Omega)$ or 20Ω(whichever is greater)Cr is the nominal capacitance (μF)</p>

9、波峰焊接 (最大焊接温度) Peak Welding (Maximum Welding Temperature)

9.1焊接条件请按照右侧的焊接图表: Welding conditions should follow the welding chart on the right side:

	最高温度Tmax	时间Time
预热	最高温度 $\leq 130^\circ C$	$\leq 1min$
焊接锡炉温度	$260 \pm 5^\circ C$	$5 \pm 1s$

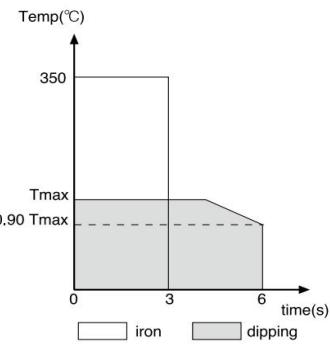
9.2如需焊接两次, 第二次焊接必须等到电容器恢复到常温。

If twice welding is required, the second welding must wait until the capacitor is restored to normal temperature.

9.3插件产品仅适合使用波峰焊接Plug-in products are only suitable for wave soldering

10、包装及运输要求Packaging and transportation requirements

电容器以纸箱包装, 应避免雨雪的直接淋浇和机械损伤, 并保存在-10°C~+40°C温度下, 相对湿度75%以下, 应避免温度剧烈变化, 阳光直射和腐蚀性气体, 存放期不超出12个月。Capacitors are packaged in Corrugated box, should be stored at temperatures ranging from -10 to + 40 C, with relative humidity below 75%, drastic temperature changes, direct sunlight and corrosive gases should be avoided. Storage period should not exceed 12 months



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[82EC2150DQ50K](#) [WMF1D68](#) [PHE841ED6150MR17T0](#) [VEA105K50](#) [82EC2220DQ50J](#) [F850AG102M300C](#)