

TO: Platan

主要材料 Main Material		印字样式及成品图 MARK&OUTLINE
组 件 Items	材料名称 Name of Material	
薄 膜 Film	双面金属化薄膜 Doublesided Metalized Polypropylene film	
导 线 Wire	镀锡铜线 (CU) CU Wire	
注塑剂 Epoxy	灰色环氧树脂 Flame-retardant Epoxy-gray	
外壳 Case	阻燃 PBT 灰色外壳 Flame-retardantplastic case	

代码 CODE	规 格 Type	成品尺寸 Dimention (mm)						备注 NOTE
		W	H	T	P	L	DΦ	
C531052FJ0K3A4A0L0	C53/105K1000V	42	40	20	37.5	5.5	1.0	

客户签承栏 CUSTOMER CONFIRM			创仕鼎承办栏 CSD OFFER		
核准 APPROVED BY	检验 CHECKED BY	承认签章 STAMP	核准 APPROVED BY	审核 MADE BY	工程签章 STAMP
					张锡炼
日期 DATE			日期 DATE	2022-06-07	

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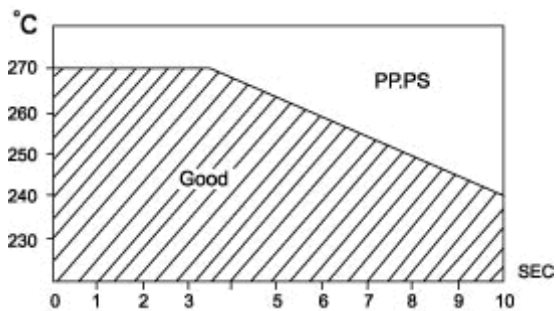
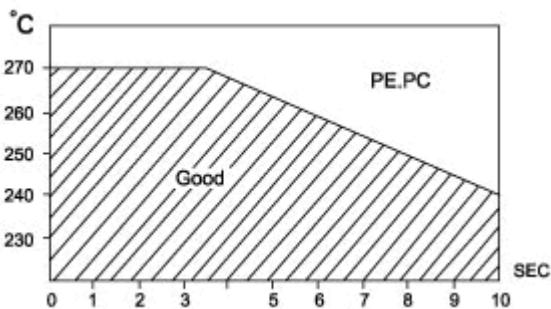
CSD-BDE-08

Item 项次	Part NO. 料号	Cap 容量(UF)	Tol. 公差	V _R (VDC)	Dimension(尺寸)mm						
					W	H	T	P	L	dΦ	
1	C531052FJ0K3A4A0L0	1.0	±10%	1000	42	40	20	375	5.5	1.0	
2											
Item 项次	Name 品名	Description 内容	MARK 印字							Remark 备注: ROHS	
1	FILM	Doublesided Metalized Polypropylene film									
2	Wire	1.0CUwire									
3	Epoxy	Flame-retardant epoxy resin.									
Operating temperature rang 使用温度范围				Max. operating temperature T _{op,max} 最高使用温度	+105℃						
				Upper category temperature T _{max} 上限温度	+95℃						
				Lower category temperature T _{min} 下限温度	-40℃						
				Rated temperature T _R 额定温度	+85℃						
高温额定电压降额标准: 1.Continuous operation with Vdc or Vac at f ≤ 60 HZ 连续使用在直流电压或 f ≤ 60HZ 交流电压 2.Operating voltage Vop for short operating periods 短期使用电压 (Vdc or Vac at f ≤ 60 Hz)				T _A (℃) 环境温度	DC voltage derating DC 电压降额			AC voltage derating AC 电压降额			
				T _A ≤ 85	V _C = V _R			V _{C,RMS} = V _{RMS}			
				85 < T _A ≤ 95	V _C = V _R · (165 - T _A) / 80			V _{C,RMS} = V _{RMS} · (165 - T _A) / 80			
				T _A (℃)	DC voltage (max.hours)			AC voltage (max.hours)			
				T _A ≤ 95	V _{OP} = 1.25 · V _C (2000 h)			V _{OP} = 1.0 · V _{C,RMS} (2000 h)			
				95 < T _A ≤ 105	V _{OP} = 1.25 · V _C (1000 h)			V _{OP} = 1.0 · V _{C,RMS} (1000 h)			
Dissipation factor tan δ 损耗角正切 tan δ				DF ≤ 0.0010 (Temperature at 20 ± 1 °C; Frequency at 10 ± 0.1KHZ; Voltage at rms ± 0.1V)							
Insulation resistance R _{ins} or time constant τ = C _R · R _{ins} at ,RH ≤ 65% 20℃ 绝缘电阻或时间常数				C _R ≤ 0.33uF	C _R > 0.33uF			充电电压 100VDC			
				15000M Ω	5000 M Ω · uF			充电时间 60S			
DC test voltage 直流测试电压				1.6 * V _R (DC) 5S CR < 0.33 uF 测试电流为 10MA CR > 0.33 uF 测试电流为 50MA							
Life test 寿命试验				1000h/85℃/V _R · 1.5VDC 线路中应加一电阻, 阻值为电压每增加 1V, 阻值增加 1 Ω.							
Limit values after damp heat test 试验后限值				Capacitance change 容量变化 ΔC/C ≤ 10%			Dissipation factor change Δtan δ 损耗角正切变化 Δtan δ ≤ 1.0 · 10 ⁻³ (at 1kHz)				
				Insulation resistance R _{ins} 绝缘电阻 ≥ 50% of minimum			or time constant τ = C _R · R _{ins} 或时间常数 as-delivered values				
Failure rate λ 失效率				1 fit(≤ 1. 10 ⁻⁹ /h) at 0.5 · V _R , 40℃							
Service life t _{SL} 使用寿命				> 30000h at 1.0 · V _R , T _A ≤ 85℃							
Total failure failure due to variation of parameters 完全失效 故障原因 的变化参数				Short circuit or open circuit 短路或开路							
				Capacitance change 容量变化 ΔC/C			0%				
				Dissipation factor tan δ 损耗角正切 tan δ			> 4. upper limit value 上限值				
				Insulation resistance R _{ins} 绝缘电阻 < 150M Ω (C _R ≤ 0.33 uF)			or time constant τ = C _R · R _{ins} 时间常数 < 50S (C _R > 0.33 uF)				
客户承认	核准	审核	确认	DIN	核准	审核	承办	日期	设计编号		
						Zhang	2022-06-07				

薄膜电容性能参数 Electrical Characteristics of Film Capacitor

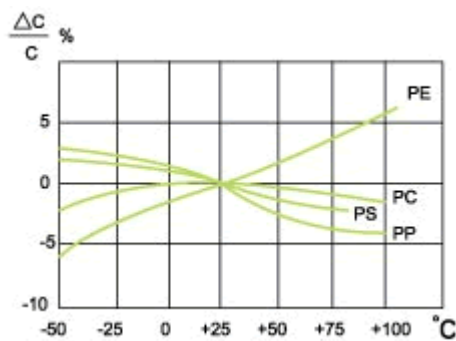
1. 焊接温度与时间对比

Soldering Temperature VS Time



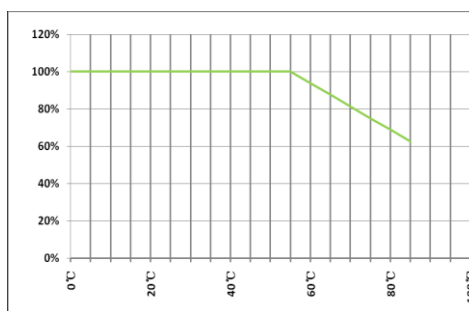
2. 温度性能

Temperature Characteristic



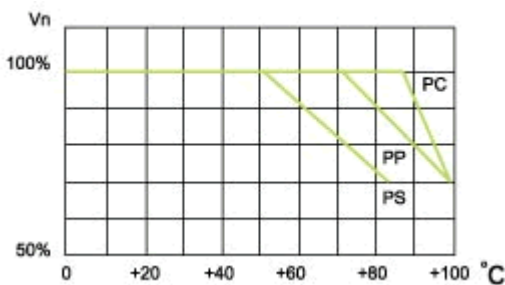
容量变化率与温度的关系

Capacitance vs. Temperature



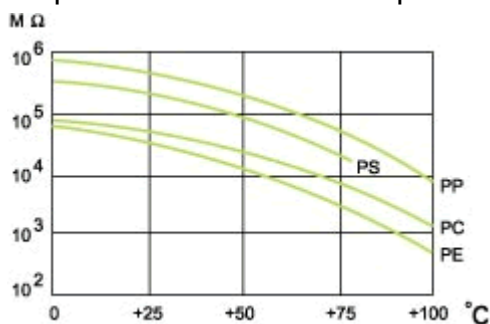
有效电流与温度的关系

Operation current vs. Temperature



使用电压与温度的关系

Operation voltage vs. Temperature

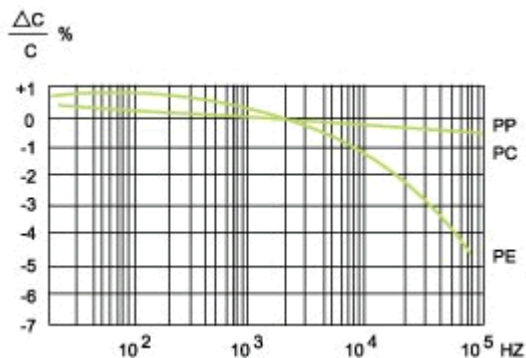


绝缘电阻与温度的关系

(CR value) IR vs. Temperature

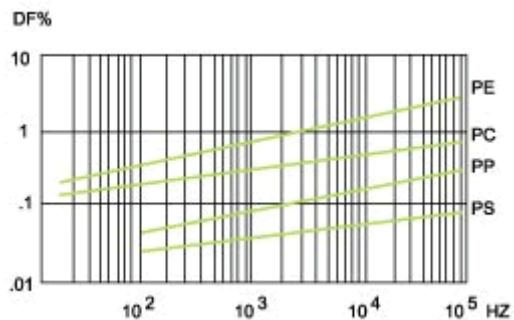
3. 频率性能

Frequency Characteristics



容量变化率与频率的关系

Capacitance vs. Frequency



损耗角正切与频率的关系

Dissipation Factor vs. Frequency