

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	
<b>C531032KEDK3H3AA00</b>	<b>C53/103K1600V</b>	<b>18</b>	<b>14.5</b>	<b>8.5</b>	<b>15</b>	<b>15</b>	<b>0.8</b>	

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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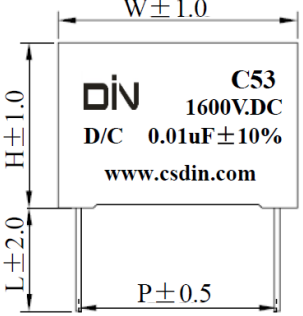
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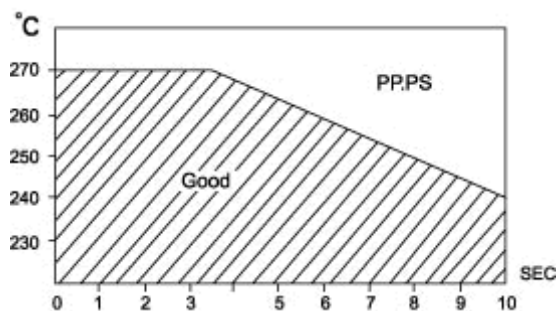
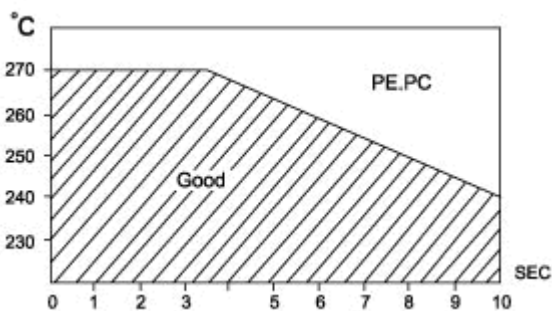
CSD-BDE-08

Item 项次	Part NO. 料号	Cap 容量(UF)	Tol. 公差	V <sub>R</sub> (VDC)	Dimension(尺寸)mm					
					W	H	T	P	L	dΦ
1	C531032KEDK3H3AA00	0.01	±10%	1600	18	14.5	8.5	15	15	0.8
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	0.8CUwire								
3	Epoxy	Flame-retardant epoxy resin.								
Operating temperature rang 使用温度范围		Max. operating temperature T <sub>op,max</sub> 最高使用温度		+105℃						
		Upper category temperature T <sub>max</sub> 上限温度		+95℃						
		Lower category temperature T <sub>min</sub> 下限温度		-40℃						
		Rated temperature T <sub>R</sub> 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 <sub>A</sub> (℃) 环境温度		DC voltage derating DC 电压降额			AC voltage derating AC 电压降额			
		T <sub>A</sub> ≤ 85		V <sub>C</sub> = V <sub>R</sub>			V <sub>C,RMS</sub> = V <sub>RMS</sub>			
		85 < T <sub>A</sub> ≤ 95		V <sub>C</sub> = V <sub>R</sub> · (165 - T <sub>A</sub> ) / 80			V <sub>C,RMS</sub> = V <sub>RMS</sub> · (165 - T <sub>A</sub> ) / 80			
		T <sub>A</sub> (℃)		DC voltage (max.hours)			AC voltage ( max.hours)			
		T <sub>A</sub> ≤ 95		V <sub>OP</sub> = 1.25 · V <sub>C</sub> (2000 h)			V <sub>OP</sub> = 1.0 · V <sub>C,RMS</sub> (2000 h)			
		95 < T <sub>A</sub> ≤ 105		V <sub>OP</sub> = 1.25 · V <sub>C</sub> (1000 h)			V <sub>OP</sub> = 1.0 · V <sub>C,RMS</sub> (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 <sub>ins</sub> or time constant τ = C <sub>R</sub> · R <sub>ins</sub> at ,RH ≤ 65% 20℃ 绝缘电阻或时间常数		C <sub>R</sub> ≤ 0.33uF		C <sub>R</sub> > 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 <sub>R</sub> (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 <sub>R</sub> · 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 <sup>-3</sup> (at 1kHz)						
		Insulation resistance R <sub>ins</sub> 绝缘电阻		≥ 50% of minimum						
		or time constant τ = C <sub>R</sub> · R <sub>ins</sub> 或时间常数		as-delivered values						
Failure rate λ 失效率		1 fit (≤ 1. 10 <sup>-9</sup> /h) at 0.5 · V <sub>R</sub> , 40℃								
Service life t <sub>SL</sub> 使用寿命		> 30000h at 1.0 · V <sub>R</sub> , T <sub>A</sub> ≤ 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 <sub>ins</sub> 绝缘电阻		< 150M Ω (C <sub>R</sub> ≤ 0.33 uF)						
		or time constant τ = C <sub>R</sub> · R <sub>ins</sub> 时间常数		< 50S (C <sub>R</sub> > 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

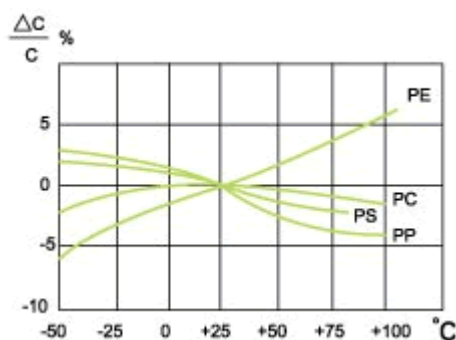
## 1. 焊接温度与时间对比

Soldering Temperature VS Time



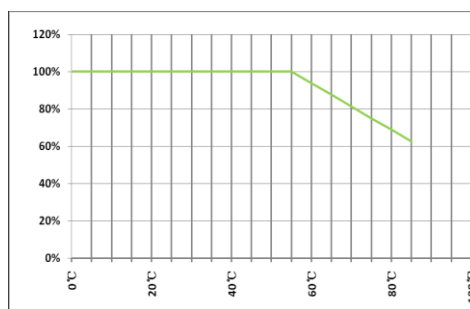
## 2. 温度性能

Temperature Characteristic



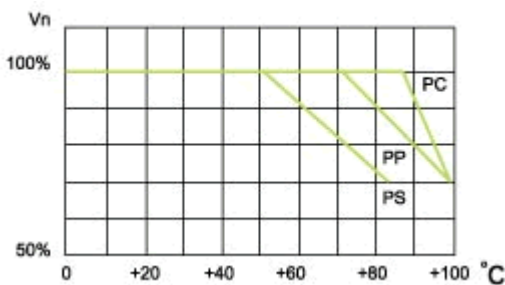
容量变化率与温度的关系

Capacitance vs. Temperature



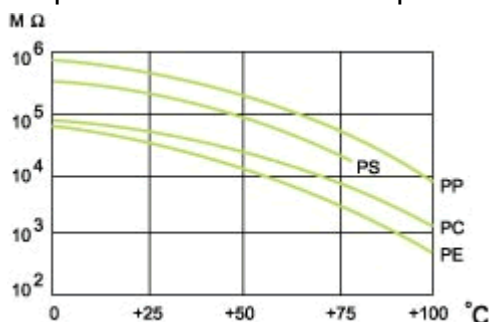
有效电流与温度的关系

Operation current vs. Temperature



使用电压与温度的关系

Operation voltage vs. Temperature

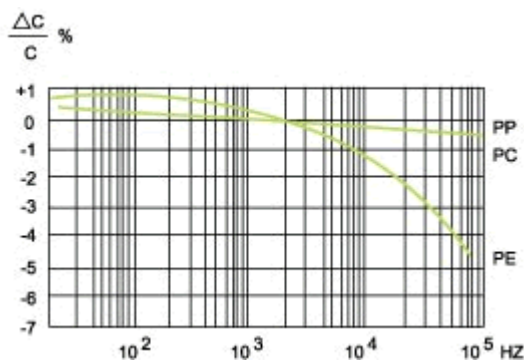


绝缘电阻与温度的关系

(CR value) IR vs. Temperature

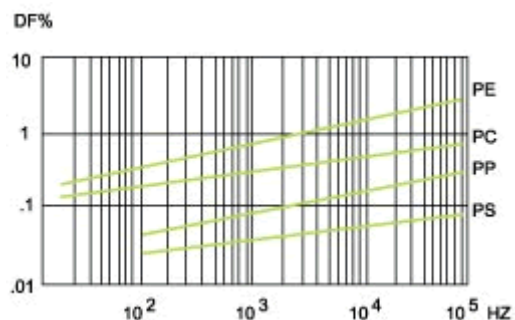
## 3. 频率性能

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