承　认　书

SPECIFICATION FOR APPROVAL

This is a preliminary specification intended for design purposes and subject to change without prior notice.

Commodity 产品：

- ❖Production Series 产品系列：C2B
- ❖Operation Temperature 工作温度: -40℃~105℃(Derate DC voltage 1.5%/. above 85°C to 105°C)
- ❖ Storage Temperature 储存温度:常温≤35℃ 湿度 75%以下
- ❖ Package color外封颜色： 黑色
- ❖ RoHS & REACH-compliant 符合 RoHS 和 REACH 要求

- ➢ PLEASE PAY ATTENTION TO THE STORAGE PROBLEM，AND REFER TO THE FILM CAPACITORS OPERATING INSTRUCTIONS FOR THE DETAILS
  请注意产品的储存及使用请参考薄膜电容器之使用说明。

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C2B 系列承认书

NO	客户料号	规 格	料 号
1		C2B 686J250VDC P=37.5mm W*H*T=42*43*28mm	
2		C2B 157J100VDC P=37.5mm W*H*T=42*43*28mm	
3		C2B 686J160VDC P=37.5mm W*H*T=42*37*22mm	
4		C2B 396J250VDC P=37.5mm W*H*T=42*37*22mm	
5		C2B 187J63VDC P=52.5mm W*H*T=57.5*50*35mm	
6		以下空白	
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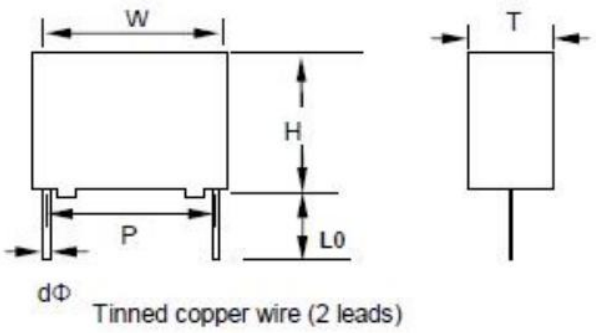
PRODUST SPECIFICATIONS
产品规格

ISSUED DATE: 2022-11-21
签发日期：2022-11-21

DESCRIPTIONS :Metallized POLYESTER Film CAPACITOR
描述：金属化聚酯薄膜电容器

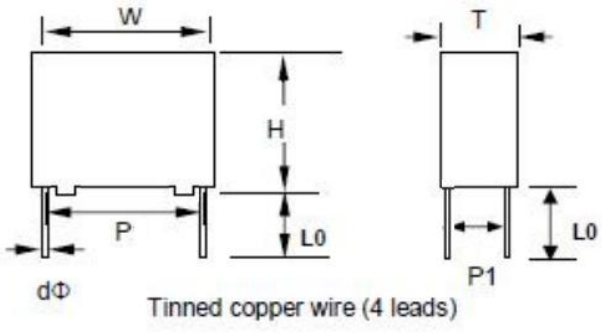
TYPE: C2B SERIES
系列：C2B系列

Operating temperature :-40℃~105℃(Derate DC voltage 1.5%/. above 85℃ to 105℃)
操作温度范围：-40℃~105℃（+85℃～+105℃，直流电压降额系数1.5%/℃）



Tinned copper wire (2 leads)

Fig. 1



Tinned copper wire (4 leads)

Fig. 2

PRODUCT DIMENSIONS :
产品尺寸(mm)

CUSTOMER'S PART NO. 客户料号	CAP 容量（μF）	Tol. 误差± %	R.V. 电压 VDC	T.V. 耐压 VDC	W 长度 ±0.5	H 高度 ±0.5	T 厚度 ±0.5	P 脚距 ± 1.0	d 线径 ±0.05	L0 ±2	Fig.	CASE	PART NO. 料号
	68	5	250	375	42	43	28	37.5	1.0	18	1	CASE	
	150	5	100	150	42	43	28	37.5	1.0	18	1	CASE	
	68	5	160	240	42	37	22	37.5	1.0	18	1	CASE	
	39	5	250	375	42	37	22	37.5	1.0	18	1	CASE	
	180	5	63	95	57.5	50	35	52.5	1.0	18	1	CASE	

APPROVED BY 批准：	CHECKED BY： 审核：	PREPARED BY： 制作：

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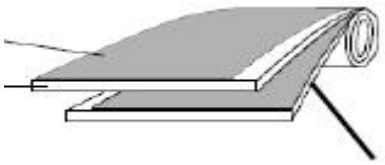
C2B SERIES CAPACITORS
金属化聚酯薄膜电容器C2B系列

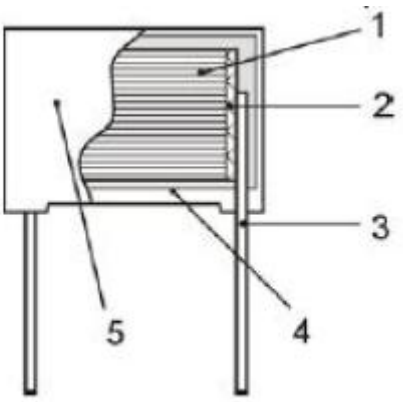
1.结构及材料(Construction and Component)

a产品结构图&印字(Construction&Mark)

金属化蒸镀层/Metallized layer

聚酯薄膜层/POL YESTER film





b材料构成清单:(Component List)

项次 Item	构成部位 Component	材料名称/材质 Material	环保要求 RoHS Requirements
1	素子 Element	金属化聚酯薄膜 Metallized PET film	符合RoHS要求 Compliant with RoHS
2	喷金层 Metal spray layer	锌线锡锌合金线 Zn and Zn-Tin alloy wire	符合RoHS要求 Compliant with RoHS
3	引线 Leads	镀锡铜线 Tinned copper wire	符合RoHS要求 Compliant with RoHS
4	灌封胶 Potting Compound	UL94V-0 级阻燃环氧树脂 Flame retardant epoxy resin(UL94V0)	符合RoHS要求 Compliant with RoHS
5	塑胶外壳 Enclosure	UL94V-0级阻燃PBT材质 Flame retardant PBT Plastic(UL 94V0)	符合RoHS要求 Compliant with RoHS
6	本体印字 Marking	激光刻印Laset	符合RoHS要求 Compliant with RoHS

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2.技术规范/Technical specification

项次 NO.	检测项目 Test item	性能 Performance	检测方法(参照 IEC60384-2;GB/T7332) Test method (refer to IEC60384-2;GB/T7332)
1	耐压测试 Withstand Voltage		参照4.2.1节 Ref 4.2.1 clause
	引线与引线间(T-T)	应无永久性击穿及飞弧 No permanent breakdown or flashover	Apply 150% of rated voltage / 60sec
	引线与外壳间 Terminal-Case		Apply 200% of rated voltage for 2 to 5 sec. C≤1μf 漏电流≤5.0mA C>1 μf 漏电流≤10.0mA 电流爬升时间：AC:150V/S DC:250V/S
2	绝缘电阻 Insulation Resistance	(20℃,100V,1min) CR≤0.33μF; IR>9000MΩ CR>0.33μF;IR>3000S	充电时间60秒charge time 60sec 充电电压500Vdc, charge voltage500V 参照4.2.4 节Ref 4.2.4 clause
3	容量 Capacitance	J±5% ;K±10% ;M±20%	参照4.2.2节 :Ref 4.2.2 clause 测试条件:1V, 1KHZ （25℃±5℃）
4	Dissipation factor 损耗角正切	≦0.01 (1.0%) at 1 KHz.	测试条件:1V,1KHZ （25℃±5℃） 参照4.2.3节 :Ref 4.2.3 clause
5	可焊性 Solderability	被测引线90%以上上锡率 At least 90% immersed lead wire should be covered new solder.	参照4.5节: Ref 4.5 clause Ta:锡槽法(方法1) Ta:Tin bath method (1) 温度:260±5℃；时间:2±0.5秒 Solder temperature :260±5℃ Immersion time: 2±0.5 sec
6	引线强度测试 Terminal strength	引线脚无可见的破损 There shall be no visible damage	参照4.3节 :Ref 4.3 clause 拉力Ua: 0.5<d≤0.8 ,10N±10% 0.8<d≤1.25, 20N±10% 弯力Ub: 0.5<d≤0.8 , 5N±10% 0.8<d≤1.25, 10N±10% 引线在每个方向进行两次弯曲 引线为刚性,Ub试验方式不适用 Lead to rigid, Ub test method is not applicable Tense(Ua): 0.5<d≤0.8 , 10N±10% 0.8<d≤1.25, 20N±10% Bend(Ub): 0.5<d≤0.8 , 5N±10% 0.8<d≤1.25, 10N±10% Bent 2 times each Lead to rigid, Ub test method is not applicable

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項次 NO.	檢測項目 Test item	性能 Performance	檢測方法(參照IEC60384-2;GB/T7332) Test method (refer to IEC60384-2;GB/T7332)
7	耐焊接熱 Resistance to Solder heat	There should be no visible damage, ΔC/C<±3% 外觀無可見的損傷,標誌清 晰,容量變化率ΔC/C<±3%	參照4.4節: Ref 4.4 clause Tb:錫槽法(方法1A) Tb:Tin bath method (1 A) 温度:260±5℃；時間:5-10秒 Solder temperature :260±5℃ Immersion time: 5-10 sec
8	初始測量 Initial measurement	容量,損耗角正切 Capacitance, Tan δ	
	温度快速變化 Rapid change of temperature	外觀無可見的損傷 There should be no visible damage.	參照4.4節: Ref 4.4 clause θA= -40℃,θB=+85℃ 循環周期:5次, 5 cycles 周期時間:30分鐘 Duration=30min
	振動 Vibration	外觀無可見的損傷 There should be no visible damage.	參照4.7節: Ref 4.7 clause 位移0.75mm或加速度0.98m/s² Amplitude 0.75mm or acceleration 0.98m/s² (兩者取較小者) (whichever is the smaller values) 振動頻率:10~500HZ, 三个方向,每2小時/方向,共6小時 2h each direction, total 6h
	Bump 碰撞	外觀無可見的損傷,標誌清 晰,容量變化率ΔC/C<±5% There should be no visible damage, ΔC/C<±5%	參照4.8節: Ref 4.8 clause 4000次,加速度390m/s² 4000 times ,acceleration 390m/s² 脈衝持續時間:6ms. Pulse duration 6ms.
	最終測量 Final measurement	外觀無可見的損傷,標誌清 晰,容量變化率ΔC/C<±5% There should be no visible damage, ΔC/C<±5% 損耗角正切增加:Increase of Tan δ CR≤1μf: ≤0.003 絕緣電阻(IR):>50%的额定值 IR>50% *Rate value	

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项次 NO.	检测项目 Test item		性能 Performance	检测方法(参照IEC60384-2;GB/T7332) Test method (refer to IECIEC60384-2;GB/T7332)
9	气候顺序	Initial measurement 初始测量		参照4.10节: Ref 4.10 clause
		干热Dry heat		+85℃,16h
		寒冷Cold		-40℃,2h
		循环湿热 Damp heat, cyclic		试验Db,其余循环 Test Db, remaining cycles
	最终测量及要求 Final measurement		应无可见损坏,标志清晰 There should be no visible damage, legible marking. 容量变化率ΔC/C<±5% Capacitance change ΔC/C<±5% 损耗角正切增加: Increase of Tan δ CR≤1μf≤0.003 绝缘电阻(IR):>50%的额定值 IR>50% *Rate value	
10	稳态湿热 Damp heat steady state		应无可见损坏,标志清晰 There should be no visible damage, legible marking. Capacitance change ΔC/C<±5% 容量变化率ΔC/C<±5% 损耗角正切增加: Increase of Tan δC ≤1μf≤0.005	参照4.11节: Ref 4.11 clause Temperature: 40±2% 温度:40±2% 湿度:93(+2/-3)%RH Humidity: 93(+2/-3)%RH 持续时间:21天 Duration:21 days
11	耐久性 Endurance		应无可见损坏,标志清晰 There should be no visible damage, legible marking. 容量变化率ΔC/C<±5% Capacitance change ΔC/C<±5% 损耗角正切增加: Increase of Tan δ CR≤1μf≤0.003 绝缘电阻(IR):>50%的额定值 IR>50% *Rate value	参照4.12节: Ref 4.12 clause 在最高允许温度下85℃，施加试验电压1.25*U ,试验周期1000小时 (1.25*U)at 85℃,1000h

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项次 NO.	检测项目 Test item	性能 Performance	检测方法(参照IECIEC60384-2;GB/T7332) Test method (refer toIEC60384-2;GB/T7332)
12	充放电 Charge and Discharge	应无可见损坏,标志清晰 There should be no visible damage, legible marking. 容量变化率ΔC/C<±5% Capacitance change ΔC/C<±5% 损耗角正切增加: Increase of Tanδ CR ≤1μf≤0.003 绝缘电阻(IR):>50%的额定值 R>50% *Rate value	参照4.13节: Ref 4.13 clause 试验电容≤1μf 试验次数:10000次 试验时间:0.5秒 放电电阻: $R1=\frac{U_R}{C_R\frac{du}{dt}}$ C＞1 μF 频率: 1KHz C≦1 μF 频率: 10KHz C ≤1μf Test of time:0.5s,10000 times Discharge resistance: $R1=\frac{U_R}{C_R\frac{du}{dt}}$
13	内部温度上升 Internal temperature rise	Temperature rise(ΔT)≤10℃ 温度上升≤10℃	试验温度:正常室温. 试验应由焊接电容器印刷的另一侧电路板等的影响周围的热组件 Test temperature: normal room temperature.

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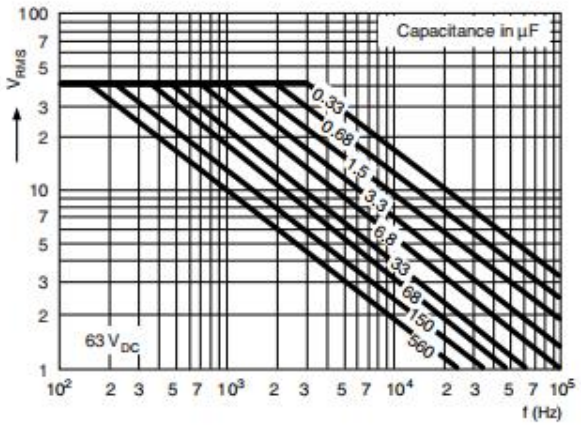
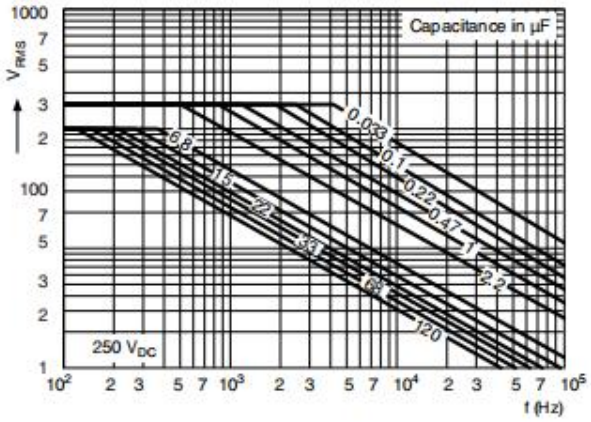
金属化聚酯薄膜电容器C2B系列

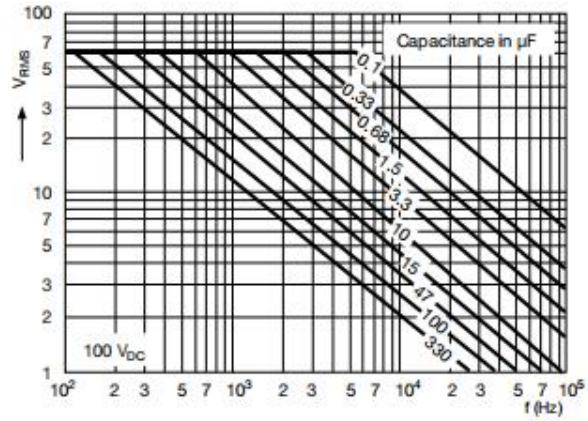
7.特性曲线图 CHARACTERISTIC CURVE

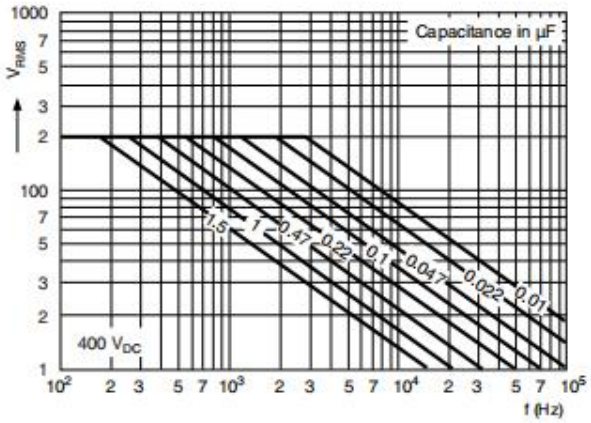
最大有效值，额定交流电压及电流对比工作频率曲线图
MAXIMUM RMS VOLTAGE AND AC CURRENT (SINEWAVE)AS A FUNCTION OF FREQUENCY

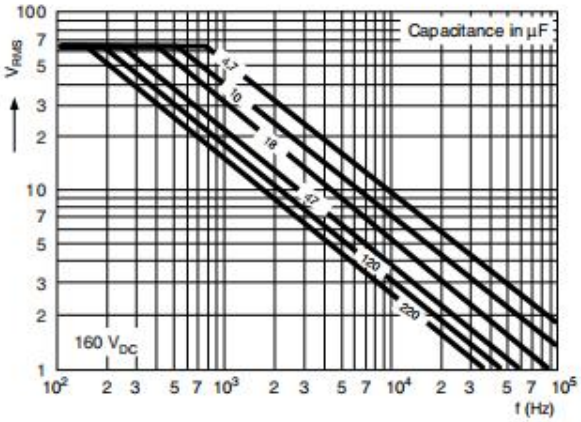
PERMISSIBLE AC VOLTAGE VS. FREQUENCY AT $T_{amb} \leq 85$ °C

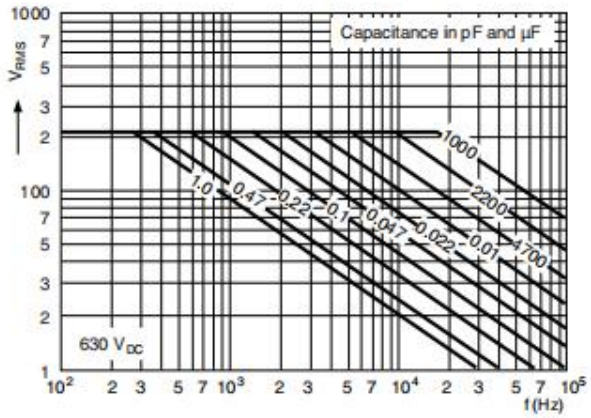












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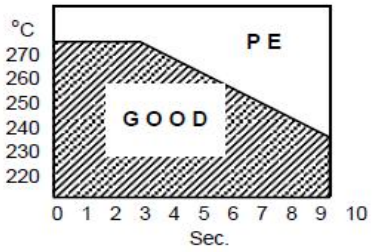
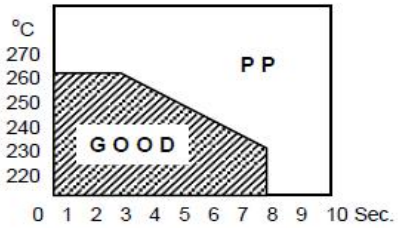
金属化聚酯薄膜电容器C2B系列

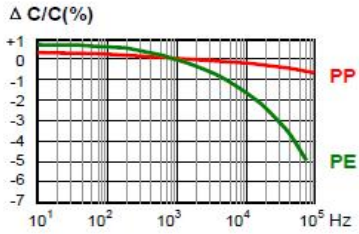
CHARACTERISTICS REFERENCE

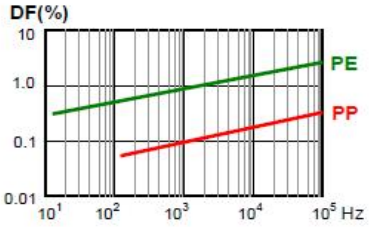
Solderring Temperature VS Time 焊接温度 VS 时间



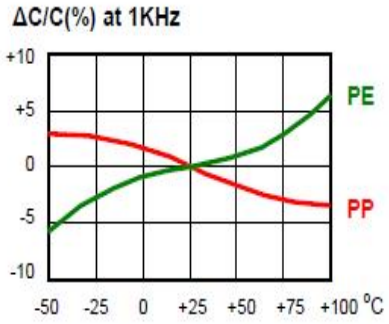


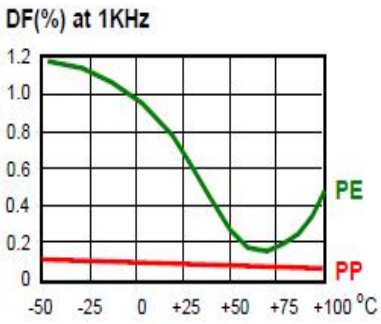
Frequency Characteristics 频率特性

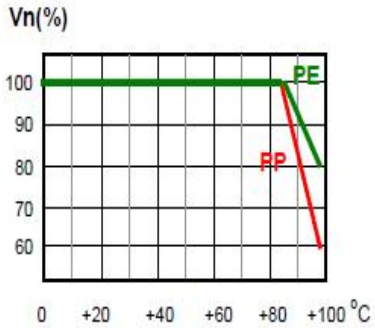


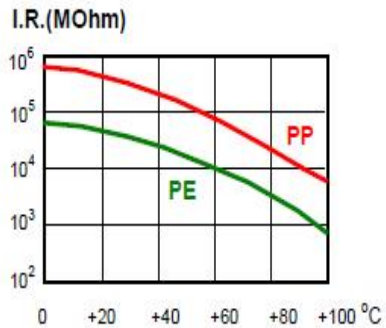


Temperature Characteristics 温度特性









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