



东莞市科雅电子科技有限公司

规格承认书

SPECIFICATIONS FOR APPROVAL

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客户名称
CUSTOMER 立创商城
规格类别
DESCRIPTION MEB 高温金属化薄膜电容-55+125°C
科雅料号
KEYA P/N MEB105K2H1501
客户料号
CUSTOMER P/N MEB 105K500V 18*14.5*8.5 P15 125度高温
承认编号
APPROVAL NO
发行日期
ISSUED DATE 2024. 8. 1

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客户承认栏 CUSTOMER APPROVAL

製作 PREPARED BY	審核 CHECKED BY	核準 APPROVAL BY
		

◎This specification will be invalidated assuming that it is not accepted when it is not returned within sixth months from the date of issue.
此承认书若未在发行日期起二个月内签回, 将视为无效。

产品编码对照表 PRODUCT CODE COMPARATIVE TABLE

产品编码 Product coding

MEB 105 K 2H 15 01

④产品类别 Type of capacitor

类别model	MPP	MPR	CBB21	CBB22	MER	CL21	PPS	CBB81	CBB28	PPN	CBB13	X2	MPB
代码 Code	KP	KP	KP	KP	PE	PE	PS	PS	PS	PN	PN	PX	PC
型号model													
代码 Code													

②产品容量代码 Capacitance code (EIA Code)

代码Code	容量换算 Capacitance			代码Code	容量换算 Capacitance			代码Code	容量换算 Capacitance		
101	100pF	0.1nF	0.0001uF	103	10,000pF	10nF	0.01uF	105	1,000,000pF	1,000nF	1uF
102	1,000pF	1nF	0.001uF	104	100,000pF	100nF	0.1uF	106	10,000,000pF	10,000nF	10uF

③产品容量误差 Tolerance (EIA Code)

误差Tol.	±1%	±2%	±3%	±5%	±10%	±20%	-10%~ 0%	0%~+10%	-5%~+10%	-10%~+5%	0%~+20%
代码Code	F	G	I	J	K	M	L	P	U	V	W

④产品额定电压 Rated Voltage

电压Voltage	63	100	125	250	275	310	350	380	400	450/500V	520/630	800	1000	1200	1250	1600	2000	3000
代码Code	1J	2A	2B	2E	2C	2H	2K	2L	2G	2S/2H	2T/2J	2D	3A	3I	3B	3C	3F	3G

⑤产品本体脚距 Lead Space

本体脚距 Lead Space	5	7.5	10	15	20	22.5	24	25	26	27.5	31
代码Code	05	07	10	15	20	22	24	25	26	27	31

⑥辅助码(内部识别码) Accessories Yards

NO.	说 明 Descriptions
1	每个规格第一料号时用“01" Each specification first edit with" 01"
2	同种规格原料、外观及尺寸有差异时用 “01，02，03. . . ” 进行区分 The same specifications appearance and size differ with non-simultaneous 01, 02, 03 to distinguish

Guideline of notabilia for the usage of plastic film capacitors

塑胶薄膜电容器的使用上注意事项及指导

Plastic film capacitors use organic films for their dielectrics, thus the capacitors may fume of flame, depending on the circuit conditions they are in, when they are damaged by applying over-voltage or over-current.

塑胶薄膜电容器使用有机薄膜为介质，当使用超过额定电压及额定电流，可能产生火焰，导致电容损坏，故请使用于正确的电路。

1. Circuit Design 电路设计

- ① Please use capacitors within the range of their characteristic ratings, only after confirming their operating and mounting environments.
请确认电容器的使用范围仅止于明定之额定特性规范，请先确认电容器使用之环境是否符合规范。
- ② In case of selecting a capacitor, please select the most suitable one which fits to your operating conditions.
请依照适合的作业条件选择相对应的电容器使用。
- ③ An applying voltage to a capacitor, including the peak of surge and ripple voltage (D.C. voltage + A.C. Peak), cannot be exceeded the rating voltage.
电容器之应用电压，包括突波和纹波电压的峰值(直流电压+交流峰值)不可超过额定电压。
- ④ Do not apply a current over its permissible level. Also, make sure the check the surrounding temperature and inherent temperature rise of a capacitor since a permissible current can be restricted by those factors.
切勿使用超出电容器可承载之电流并检查电容器周围之温度，因有许多因素会影响电流之变化，进而造成电容器之温度上升。
- ⑤ Do not conduct a rapid charge and discharge to a capacitor which may lead to characteristics degradations or break down of the capacitor.
请不要对电容器进行快速的充电和放电，此可能会导致电容器之特性退化或损坏。

2. Mounting 安装

- ① Do not apply any exceeding tension or torsion to lead wires of a capacitor, during the mounting process.
请不要使用任何超过电容导线可承受之张力进行插件。
- ② Please mount a capacitor where it dose not contact any other heating parts, high voltage parts and other parts.
请确认电容器使用环境，避免接触任何其他升温热物件,高压和其他部分料件。
- ③ Please conduct soldering process by strictly following the specified conditions.
进行焊接过程实，请严格遵循指定之焊接条件。

3.Storing and handling 储存和处理

- ① A storage needs to be kept indoors at -10~+30℃ and relative humidity of under 75% without any sudden temperature changes, direct sunlight and corrosive gas around.
需保存于-10 ~ 30℃，相对湿度低于75%并确保没有任何突然的温度变化，避免直接阳光之曝晒及接触腐蚀性气体之环境。
- ② Do not apply and exceeding vibration, shock (dropping) and pressure.
不应过度震动、碰撞和及外力的冲击。

- Construction

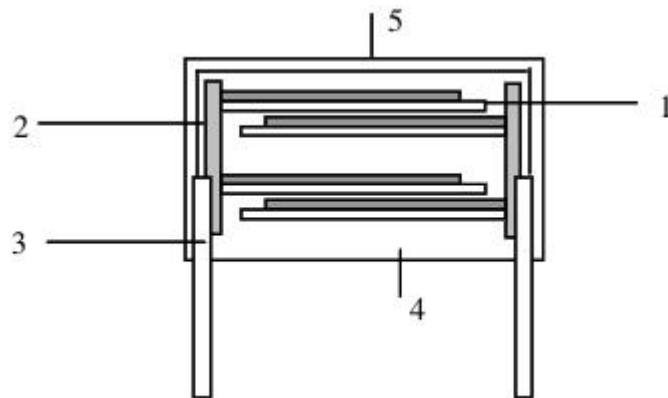
1 : Metallized polyester film(AL)

2 : Metal spray(Zn+Tin/Zn)

3 : Lead wire (Tin-plated copper-clad steel wire)

4 : Epoxy resin (UL94V-0、 B)

5 : PBT case. (UL94V-0、 B)



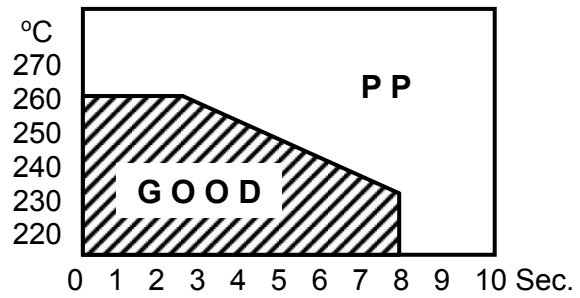
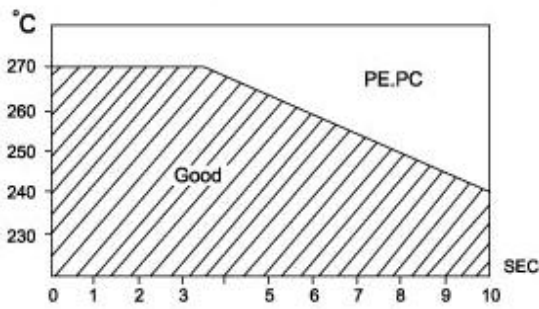
TYPE : MEB		SPECIFICATION		东莞市科雅电子科技有限公司	
No.	項 目 Item		性 能 Performance	條 件 Test Conditions	參考標準 Reference Standard
1	使用溫度範圍 Operating Temperature Range		-55°C ~ +125°C (+85°C to 125°C: decreasing factor 1.25% per °C for VR(DC))		IEC 60384-2 2.1.1 2.2.4
2	額定電壓 Rated Voltage		100VDC, 250VDC, 400VDC, 630VDC		IEC 60384-2 2.2.3
3	耐電壓 Withstand Voltage	端子間 Between Terminals 端子外裝間 Between Terminals & Enclosure	無異常 No abnormality.	Rated voltage x 160% 2 sec Charge and discharge current shall not exceed 10 mA	IEC 60384-2 4.2.1
4	絕緣阻抗 Insulation Resistance		$C \leq 0.33 \mu F$ $VR > 100V$ 7,500MΩ min $VR \leq 100V$ 3.750MΩ min $C > 0.33 \mu F$ $VR > 100V$ 2,500MΩ*μF min $VR \leq 100V$ 1.250MΩ*μF min	Charge time: 60 ± 5 sec. Charge voltage: $V_R < 100VDC$: 50VDC $V_R < 500VDC$: 100VDC $V_R \geq 500VDC$: 500VDC Test Temp: 20°C	IEC 60384-2 4.2.4
5	靜電容量 Capacitance		於指定範圍內 Within specified tolerance	at 1 KHz ± 10% Measure voltage at 1 Vrms Test temp: 20°C	IEC 60384-2 4.2.2
6	散逸因數 Dissipation Factor		1.0 %max at 1KHz	Measure voltage at 1 Vrms Test temp: 20°C	IEC 60384-2 4.2.3
7	端子強度 Terminal Strength	抗拉強度 Pull Strength 扭轉強度 Bending Strength	端子不鬆斷 No cutting or slack of terminals	Wire diameter: 0.6&0.8 mm Load: 1 kg, time: 10 sec. Wire diameter: 1.0&1.2mm Load: 2 kg, time: 20 sec. Wire diameter: 0.6&0.8 mm 1.0 & 1.2mm 90° x 4 time	IEC 60384-2 4.3
8	耐震性 Vibration Proof		無明顯異常 No abnormality of the appearance	Frequency range : 10-55-10-55 Hz Amplitude: 0.75 mm, 2 hrs/direction for 3 directions	IEC 60384-2 4.7
9	焊錫附著性 Solder ability		導線浸入後的表面至少需附著 95% 的新焊錫 At least 95% of the surface of the lead wire dipped into is covered with new solder.	Solder temp: 245°C ± 5°C Immersion time: 2 ± 0.5 sec. Solder: SnAgCu (Sn:96.5% Ag:3% Cu:0.5%)	IEC 60384-2 4.5
10	焊錫耐熱性 Resistance to Soldering heat	外觀 Appearance 耐電壓 Withstand Voltage 靜電容量變化率 Capacitance Change 散逸因數 Dissipation Factor 絕緣阻抗 Insulation Resistance	無明顯異常 No abnormality on appearance 依項目 3 Comply with item 3 $\Delta C/C \leq \pm 2\%$ Within ± 2% $\Delta DF \leq 1.0\%$ at 1KHz Same as the spec of item 4 above	Solder temp: 265 ± 5°C Immersion time: 10 ± 0.5 sec.	IEC 60384-2 4.4

TYPE : MEB SPECIFICATION			东莞市科雅电子科技有限公司		
No.	項 目 Item		性 能 Performance	條 件 Test Conditions	參考標準 Reference Standard
11	耐 寒 性 Cold Resistance	靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$	Temperature: $-40 \pm 2^{\circ}\text{C}$ Duration: 96 ± 4 hrs	IEC 60384-2 4.10.4
12	耐 熱 性 Dry Heat Resistance	絕 緣 阻 抗 Insulation Resistance	50% of minimum specified value	Temperature: $+85 \pm 2^{\circ}\text{C}$ Duration: 96 ± 4 hrs	IEC 60384-2 4.10.2
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$		
13	溫度循環 Temperature Cycle	外 觀 Appearance	無 明 顯 異 常 No abnormality on appearance	Total: 6 cycle	IEC 60384-2 4.6
		耐 電 壓 Withstand Voltage	依 項 目 3 Comply with item 3		
		絕 緣 阻 抗 Insulation Resistance	50% of minimum specified value		
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$		
		散 逸 因 數 Dissipation Factor	$\Delta DF \leq 1.0\%$ at 1KHz (20°C)		
14	穩態濕熱試驗 Damp heat Steady state	外 觀 Appearance	無 明 顯 異 常 No abnormality on appearance 印 字 可 辨 識 Marking to be legible	Humidity: 90~95% RH Temperature: $+40 \pm 2^{\circ}\text{C}$ Duration: 504 ± 1 hrs Measure after exposing at normal state for 1.5 ± 0.5 hrs.	IEC 60384-2 4.11
		耐 電 壓 Withstand Voltage	依 項 目 3 Comply with item 3		
		絕 緣 阻 抗 Insulation Resistance	50% of minimum specified value		
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$		
		散 逸 因 數 Dissipation Factor	$\Delta DF \leq 1.0\%$ at 1KHz (20°C)		
15	高溫負荷 Endurance Test	外 觀 Appearance	無 明 顯 異 常 No abnormality on appearance 印 字 可 辨 識 Marking to be legible	Temperature: $+85 \pm 3^{\circ}\text{C}$ Duration: $1,000 +48/-0$ hrs Applied voltage $125\% \times V_R$ through series resistor of $20 \sim 1000\Omega/V$ to the Capacitor Measure after exposing at normal state for 4 hrs.	IEC 60384-2 4.12
		耐 電 壓 Withstand Voltage	依 項 目 3 Comply with item 3		
		絕 緣 阻 抗 Insulation Resistance	50% of minimum specified value		
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 8\%$ Within $\pm 8\%$		
		散 逸 因 數 Dissipation Factor	$\Delta DF \leq 1.0\%$ at 1KHz (20°C)		

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

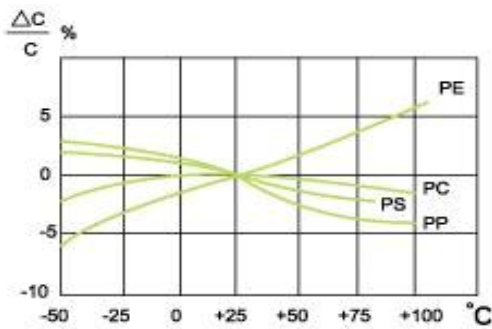
1. 焊接温度与时间对比

Soldering Temperature VS Time



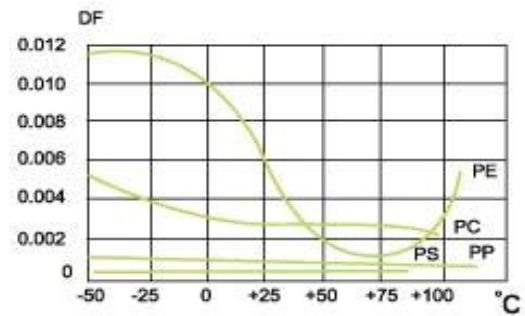
2. 温度性能

Temperature Characteristic



正切

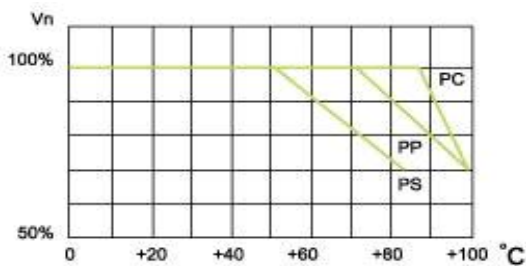
Capacitance vs. Temperature



损耗角

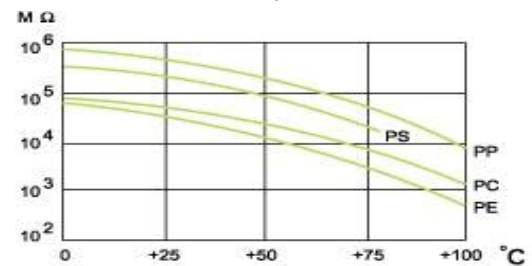
与温度的关系

Dissipation Factor vs. Temperature



缘电阻与温度的关系

Operation voltage vs. Temperature



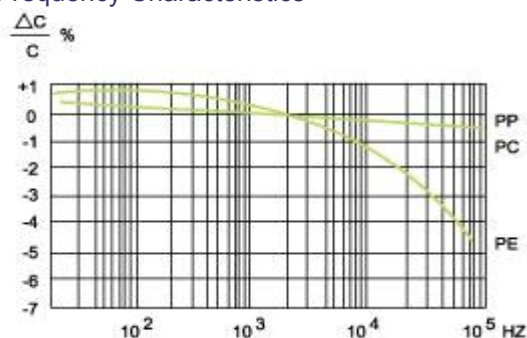
使用电压与温度的关系

绝

(CR value) IR vs. Temperature

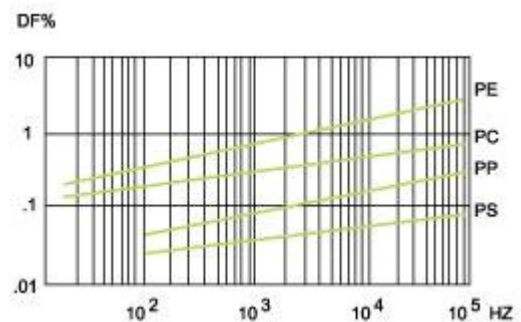
3. 频率性能

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