

规 格 书

SPECIFICATION

客户 CUSTOMER	立创商城
客户料号 CUSTOMER P/N	
规格描述 DESCRIPTION	轴向CBB电容/250V/2UF/K/31*14*8/L35
产品编码 PART NUMBER	3-MPF205K2E
日期 DATE	2025-10-15

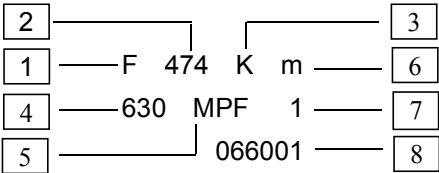
德尔创承认栏 APPROVED BY DERSONIC			客户承认栏 APPROVED BY CUSTOMER	
批 准 APPROVED BY	审 核 CHECK BY	制订 FORMULATE BY	批 准 APPROVED BY	审 核 CHECK BY
				

东莞市德尔创电子有限公司

DONGGUAN DERSONIC ELECTRONIC CO., LTD.

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TEL: +86-769-8533 5208 FAX: +86-769-8155 5989
Website: <http://www.dersonic.com>

Marking



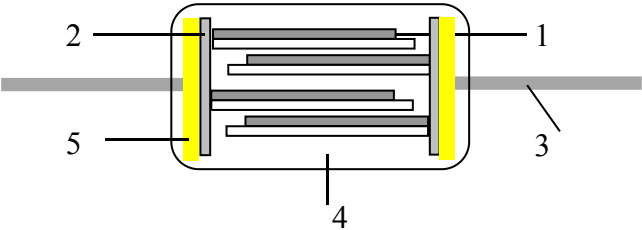
- | | | | |
|--------------------|------------------|---------------|---|
| 1 : Company symbol | 2 : Capacitance | 3 : Tolerance | 4 : Rated voltage |
| 5 : Type name | 6 : Year / Month | 7 : Week | 8 : Production batch number
(L≥18mm,OD≥10.0mm) |

Year	Month	Mark	Year	Month	Mark	Year	Month	Mark	Year	Month	Mark
2021 2025 ...	1	A	2022 2026 ...	1	N	2023 2027 ...	1	a	2024 2028 ...	1	n
	2	B		2	P		2	b		2	
	3	C		3	Q		3	c		3	q
	4	D		4	R		4	d		4	r
	5	E		5	S		5	e		5	s
	6	F		6	T		6	f		6	t
	7	G		7	U		7	g		7	u
	8	H		8	V		8	h		8	v
	9	J		9	W		9	j		9	w
	10	K		10	X		10	k		10	x
	11	L		11	Y		11	l		11	y
	12	M		12	Z		12	m		12	z

Cycle every 4 years, rotating back and forth

- Code: A: January 2021, January 2025, January 2029...
- Code: B: February 2021, February 2025, February 2029...

Construction

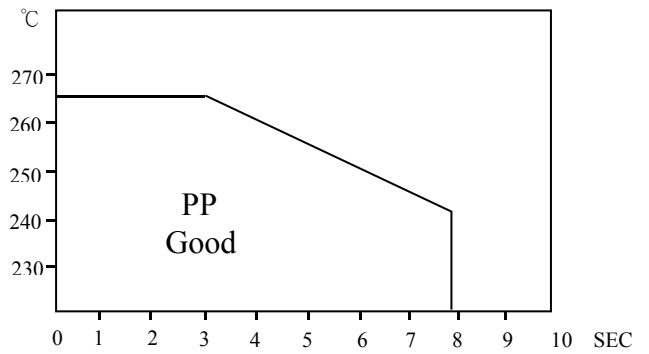
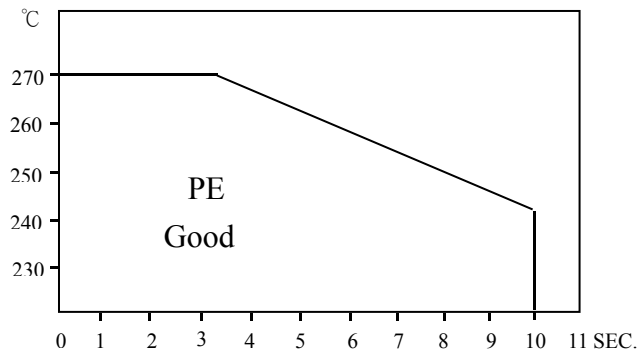


- 1: Metallized polypropylene film
- 2: Metal spray
- 3: Lead wire
- 4: Mara tape:UL510
- 5: Epoxy resin: UL94V-0

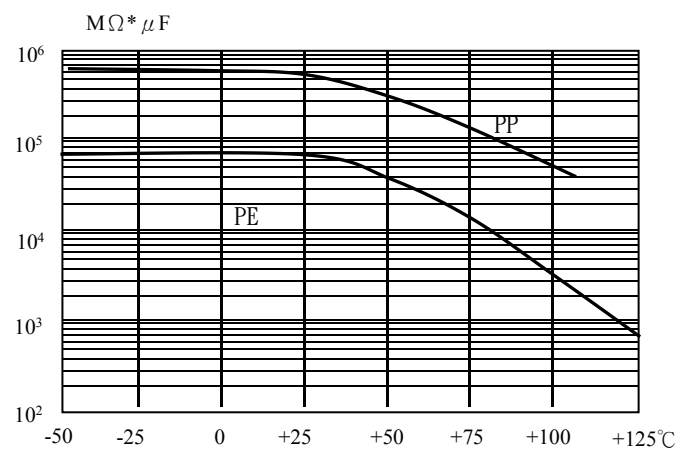
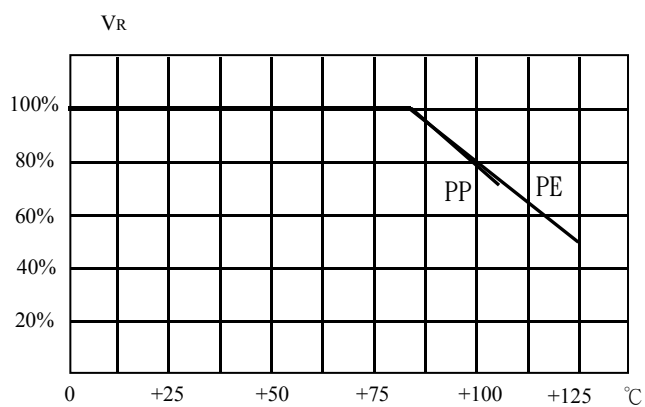
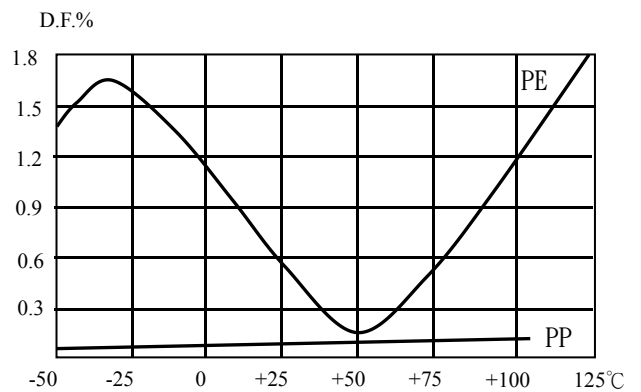
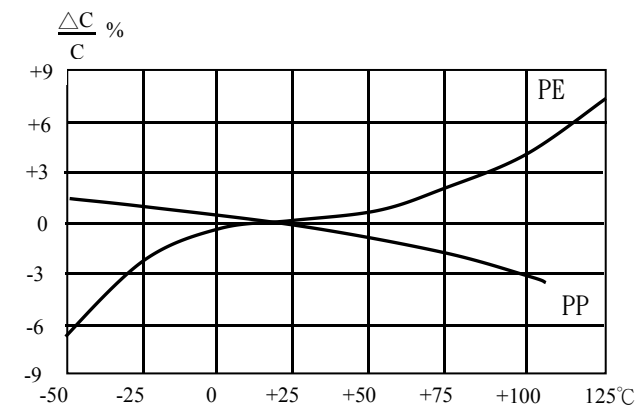
TYPE : MPF SPECIFICATION			ELECTRICAL CHARACTERISTICS		
No	項 目 Item		性 能 Performance	條 件 Test Conditions	參考標準 Reference Standard
1	使用溫度範圍 Operating Temperature Range		-40°C ~ +110°C (+85°C to 110°C: decreasing Factor 1.25% per°C for VR(DC))		IEC 60384-16 2.1.1 2.2.5
2	額 定 電 壓 Rated Voltage		250VDC		IEC 60384-16 2.1.4
3	耐電壓 Withstand Voltage	端子間 Between Terminals	無 異 常 No abnormality.	Rated voltage x 150% 2 sec Charge and discharge current shall not exceed 10 mA	IEC 60384-16 4.2.1
		端子外裝間 Between Terminals & Enclosure			
4	絕 緣 阻 抗 Insulation Resistance		C ≤ 0.33μF VR ≤ 100V 50,000MΩ VR > 100V 100,000MΩ	Charge time: 60 ±5sec. Charge voltage: VR < 100VDC: 50VDC VR < 500VDC: 100VDC VR ≥ 500VDC: 500VDC Test Temp: 20°C	IEC 60384-16 4.2.4
			C > 0.33μF VR ≤ 100V 15,000 S VR > 100V 30,000 S		
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 60384-16 4.2.2
6	散 逸 因 數 Dissipation Factor		0.1 %max at 1KHz	Measure voltage at 1 Vrms Test temp: 20°C	IEC 60384-16 4.2.3
7	端子強度 Terminal Strength	抗拉強度 Pull 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.	IEC 60384-16 4.3
		扭轉強度 Bending Strength		Wire diameter: 0.6 & 0.8 mm 1.0 & 1.2mm 90° x 4 time	
8	耐 震 性 Vibration Proof		無 明 顯 異 常 No abnormality of the appearance	Frequency range:10-55-10-55 Hz Amplitude: 0.75mm, 2 hrs/direction for 3 directions	IEC 60384-16 4.7
9	焊 錫 附 著 性 Solderability		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 ±0.5sec. Solder: SnAgCu (Sn:96.5% Ag:3% Cu:0.5%)	IEC 60384-16 4.5
10	焊錫耐熱性 Resistance to Soldering heat	外 觀 Appearance	無 明 顯 異 常 No abnormality on appearance	Solder temp: 265 ±5°C Immersion time: 10±0.5 sec.	IEC 60384-16 4.4
		耐 電 壓 Withstand Voltage	依 項 目 3 Comply with item 3		
		靜電容量變化率 Capacitance Change	△C/C ≤ ±3% Within ±3%		
		散 逸 因 數 Dissipation Factor	於 項 目 6 範 圍 以 內 Within spec of item 6 above.		
		絕 緣 阻 抗 Insulation Resistance	Same as the spec of item 4 above		

TYPE : MPF SPECIFICATION			ELECTRICAL CHARACTERISTICS																	
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 60384-16 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 60384-16 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 <table><tr><td>Step</td><td>Temp</td><td>Time</td></tr><tr><td>1</td><td>$-40 \pm 2^{\circ}\text{C}$</td><td>$30 \pm 1$ min</td></tr><tr><td>2</td><td>$+25 \pm 2^{\circ}\text{C}$</td><td>10~15 min</td></tr><tr><td>3</td><td>$+85 \pm 2^{\circ}\text{C}$</td><td>$30 \pm 1$ min</td></tr><tr><td>4</td><td>$+25 \pm 2^{\circ}\text{C}$</td><td>10~15 min</td></tr></table>	Step	Temp	Time	1	$-40 \pm 2^{\circ}\text{C}$	30 ± 1 min	2	$+25 \pm 2^{\circ}\text{C}$	10~15 min	3	$+85 \pm 2^{\circ}\text{C}$	30 ± 1 min	4	$+25 \pm 2^{\circ}\text{C}$	10~15 min	IEC 60384-16 4.6
		Step	Temp		Time															
		1	$-40 \pm 2^{\circ}\text{C}$		30 ± 1 min															
		2	$+25 \pm 2^{\circ}\text{C}$		10~15 min															
		3	$+85 \pm 2^{\circ}\text{C}$		30 ± 1 min															
4	$+25 \pm 2^{\circ}\text{C}$	10~15 min																		
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 $\pm 5\%$																			
散逸因數變化量 Dissipation Factor Change	$\Delta DF \leq 0.3\%$ 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 60384-16 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 $\pm 5\%$																	
		散逸因數變化量 Dissipation Factor Change	$\Delta DF \leq 0.1\%$ 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: $+85 \pm 2^{\circ}\text{C}$ 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 60384-16 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	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$																	
		散逸因數變化量 Dissipation Factor Change	$\Delta DF \leq 0.2\%$ at 1KHz (20°C)																	

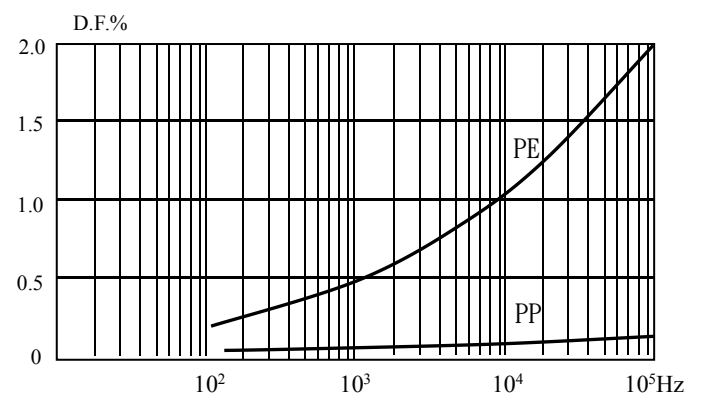
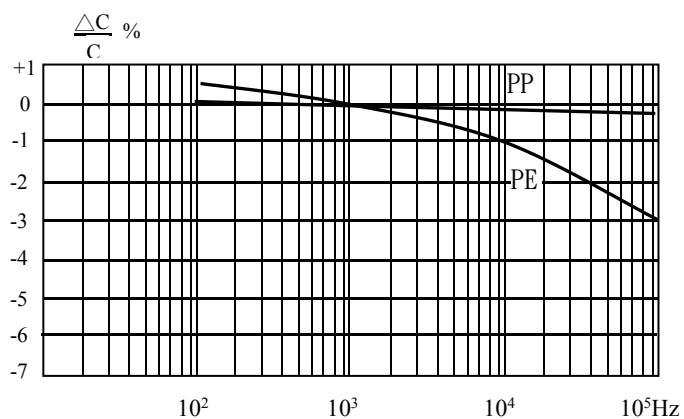
Soldering temperature vs time



Temperature characteristics

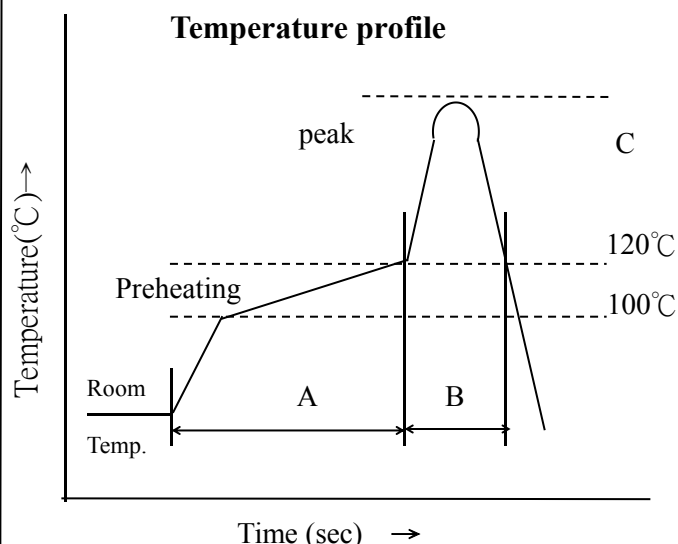


Frequency characteristics



Component: Film Capacitors

1. Wave flow soldering



Recommendable condition

	Conditions	Values	Unit
A	Heating time	50-90	sec
	Heating temperature	100-120	°C
	Temp. rise gradient	1-2	°C/sec
B	Dipping time *	4 (MAX)	sec
C	Peak temperature	265	°C
	Peak-temp. hold time	Momentary	sec

2. Requirement (Wave flow soldering):

Polypropylene film capacitors body temperature less than 120°C, 90sec

Polyester film capacitors body temperature less than 150°C, 60sec

3. Wave Flow soldering(solder dipping)

Peak temperature	265°C
Dipping time	4 sec
Soldering	1 time

4. Hand soldering

Soldering iron tip temperature	350°C
Soldering time	3 sec

5.If re-work or dipping twice in necessary, it should be done after the capacitor returned to the normal temperature, Suggestion time is 24 hours.

6. Not Suitable for reflow soldering.