

# STRONG COMPONENTS CO., LTD.

## Metallized Polypropylene Film Capacitor

Type: **MPH**

### SPECIFICATIONS

No.	項 目 Item	性 能 Performance	條 件 Test Conditions
1	額定溫度 Rated Temperature	-40°C ~+105°C for VR(DC)	
2	使用溫度範圍 Operating Temperature Range	-40°C ~+105°C (+85°C to 105°C: decreasing factor 1.5% per °C for VR(DC))	
3	額定電壓 Rated Voltage	50VDC, 100VDC, 160VDC, 250VDC, 400VDC, 450VDC, 500VDC, 630VDC,	
4	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 150% 1~5 sec Charge and discharge current shall not exceed 10 mA
5	絕緣阻抗 Insulation Resistance	$C \leq 0.33\mu\text{F}$ : 100,000M min $C > 0.33\mu\text{F}$ : 33,000M / $\mu\text{F}$ min	Charge time: 60 $\pm$ 5sec. Charge voltage: R.V. < 500VDC: 100VDC R.V. $\geq$ 500VDC: 500VDC Test Temp: 25°C
6	靜電容量 Capacitance	於指定範圍內 Within specified tolerance	at 1 KHz $\pm$ 10% Measure R.V: 5 Vrms or below Test temp: 25°C
7	散逸因數 Dissipation Factor	a. 0.08 %max at 1KHz b. 0.15 %max at 10KHz ( $C \leq 1.0\mu\text{F}$ ) 0.2 %max ( $1.0 < C \leq 3.3\mu\text{F}$ )	Measure R.V: 5 Vrms or below Test temp: 25°C
8	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 mm Load: 2 kg, time: 20 sec.  Wire diameter: 0.6&0.8 mm Load: 0.5 kg, 90° x 4 time Wire diameter: 1.0 mm Load: 1 kg, 90° x 4 time
9	耐震性 Vibration Proof	無明顯異常 No abnormality of the appearance	Frequency range 10-55-10 Hz Amplitude: 1.5 mm, 2 hrs/direction for 3 directions
10	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: 240°C $\pm$ 2°C Immersion time: 2 $\pm$ 0.5sec. Solder: SnAgCu (Sn:96.5% Ag:3% Cu:0.5%)
11	焊錫耐熱性 Resistance to Solder 1ing heat	外 觀 Appearance  耐 電 壓 Withstand Voltage  靜電容量變化率 Capacitance Variation  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  $\pm$ 1%以內 Within $\pm$ 1%  於項目 6 範圍以內 Within spec of item 6 above.  Same as the spec of item 4 above  Solder temp: 265 $\pm$ 5°C Immersion time: 10 $\pm$ 0.5sec.

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Metallized Polypropylene Film Capacitor

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**SPECIFICATIONS**

No.	項 目 Item	性 能 Performance	條 件 Remark																
12	耐寒性 Cold Resistance	靜電容量變化率 Capacitance Variation	+3/-0%以內 Within +3/-0%	Temperature: -40 ±2°C Duration: 96±4 hrs															
13	耐熱性 Dry Heat Resistance	絕緣阻抗 Insulation Resistance	C ≤ 0.33μF: 3,000M min C > 0.33μF: 1,000M / f min	Temperature: +85 ±2°C Duration: 96±4hrs															
		靜電容量變化率 Capacitance Variation	+0/-5%以內 Within +0/-5%																
14	溫度循環 Temperature Cycle	外觀 Appearance	無明顯異常 No abnormality on appearance	Total: 6 cycle <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40 ±2°C</td> <td>30 ±1min</td> </tr> <tr> <td>2</td> <td>+25 ±2°C</td> <td>10~15min</td> </tr> <tr> <td>3</td> <td>+105 ±2°C</td> <td>30 ±1min</td> </tr> <tr> <td>4</td> <td>+25 ±2°C</td> <td>10~15min</td> </tr> </tbody> </table>	Step	Temp	Time	1	-40 ±2°C	30 ±1min	2	+25 ±2°C	10~15min	3	+105 ±2°C	30 ±1min	4	+25 ±2°C	10~15min
		Step	Temp		Time														
		1	-40 ±2°C		30 ±1min														
		2	+25 ±2°C		10~15min														
		3	+105 ±2°C		30 ±1min														
4	+25 ±2°C	10~15min																	
耐電壓 Withstand Voltage	依項目3 Comply with item 3																		
絕緣阻抗 Insulation Resistance	C ≤ 0.33μF: 15,000M min C > 0.33μF: 5,000M /μF min																		
靜電容量變化率 Capacitance Variation	±5%以內 Within ±5%																		
散逸因數 Dissipation Factor	0.1 %max at 1KHz (25°C)																		
15	耐濕性試驗 Humidity Resistance	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 ±2°C Duration: 96 ±4 hrs  Measure after exposing at normal state for 16 hrs.															
		耐電壓 Withstand Voltage	依項目3 Comply with item 3																
		絕緣阻抗 Insulation Resistance	C ≤ 0.33μF: 10,000M min C > 0.33μF: 3,000M /μF min																
		靜電容量變化率 Capacitance Variation	±3%以內 Within ±3%																
		散逸因數 Dissipation Factor	0.1 %max at 1KHz (25°C)																
16	高溫負荷 High Temperature Loading Test	外觀 Appearance	無明顯異常 No abnormality on appearance 印字可辨識 Marking to be legible	Temperature: +105 ±2°C Duration: 1,000 +48/-0 hrs  Applied voltage 100x R.V. through series resistor of 20~1000 Ω to the Capacitor  Measure after exposing at normal state for 4 hrs.															
		耐電壓 Withstand Voltage	依項目3 Comply with item 3																
		絕緣阻抗 Insulation Resistance	C ≤ 0.33μF: 15,000M min C > 0.33μF: 5,000M /μF min																
		靜電容量變化率 Capacitance Variation	±5%以內 Within ±5%																
		散逸因數 Dissipation Factor	0.1 %max at 1KHz (25°C)																