

**STRONG COMPONENTS CO., LTD.**  
**Polypropylene Film Capacitor (Non-Inductive)**

Type: **PPN**

**SPECIFICATIONS**

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 ~ +105°C (+85°C to 105°C: decreasing factor 1.35% per °C for VR(DC))		IEC 60384-16 <b>2.1.1 2.2.5</b>
2	額定電壓 Rated Voltage	50VDC~1K0VDC		IEC 60384-16 <b>2.1.4</b>
3	耐電壓 Withstand Voltage	端子間 Between Terminals	無異常 No abnormality.	Rated voltage x 200% 2 sec Charge and discharge current shall not exceed 10 mA
		端子外裝間 Between Terminals & Enclosure		
4	絕緣阻抗 Insulation Resistance	C ≤ 0.33μF	VR > 100V 25,000MΩ min VR ≤ 100V 12,500MΩ min	Charge time: 60 ±5sec. Charge voltage: VR < 100VDC: 50VDC VR < 500VDC: 100VDC VR 500VDC: 500VDC Test Temp: 20°C
		C > 0.33μF	VR > 100V 7,500MΩ*μF min VR ≤ 100V 3,750MΩ*μF min	
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 <b>4.2.2</b>
6	散逸因數 Dissipation Factor	a. 0.08 %max at 1KHz b. 0.15 %max at 10KHz (C ≤ 1.0μF) 0.2 %max (1.0 < C ≤ 3.3μF)	Measure voltage at 1 Vrms Test temp: 20°C	IEC 60384-16 <b>4.2.3</b>
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.
		扭轉強度 Bending Strength		
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 <b>4.7</b>
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 <b>4.5</b>
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.
		耐電壓 Withstand Voltage	依項目 3 Comply with item 3	
		靜電容量變化率 Capacitance Change	△C±3%以內 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	

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11	耐寒性 Cold Resistance	靜電容量變化率 Capacitance Change	$\Delta C \pm 5\%$ 以內 Within $\pm 5\%$	Temperature: $-40 \pm 2^\circ\text{C}$ Duration: $96 \pm 4$ hrs  IEC 60384-16 <b>4.10.4</b>
12	耐熱性 Dry Heat Resistance	絕緣阻抗 Insulation Resistance	$\Delta C 50\%$ of minimum specified value	Temperature: $+85 \pm 2^\circ\text{C}$ Duration: $96 \pm 4$ hrs  IEC 60384-16 <b>4.10.2</b>
		靜電容量變化率 Capacitance Change	$\Delta C \pm 5\%$ 以內 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 60384-16 <b>4.6</b>
		耐電壓 Withstand Voltage	依項目 3 Comply with item 3	
		絕緣阻抗 Insulation Resistance	$\Delta C 50\%$ of minimum specified value	
		靜電容量變化率 Capacitance Change	$\Delta C \pm 5\%$ 以內 Within $\pm 5\%$	
		散逸因數變化量 Dissipation Factor Change	$\Delta C 0.3\%$ max at 1KHz ( $20^\circ\text{C}$ )	
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: $504 \pm 1$ hrs  Measure after exposing at normal state for $1.5 \pm 0.5$ hrs.  IEC 60384-16 <b>4.11</b>
		耐電壓 Withstand Voltage	依項目 3 Comply with item 3	
		絕緣阻抗 Insulation Resistance	$\Delta C 50\%$ of minimum specified value	
		靜電容量變化率 Capacitance Change	$\Delta C \pm 5\%$ 以內 Within $\pm 5\%$	
		散逸因數變化量 Dissipation Factor Change	$\Delta C 0.1\%$ max at 1KHz ( $20^\circ\text{C}$ )	
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 $125\% \times VR$ through series resistor of $20 \sim 1000 \Omega$ to the Capacitor  Measure after exposing at normal state for 4 hrs.  IEC 60384-16 <b>4.12</b>
		耐電壓 Withstand Voltage	依項目 3 Comply with item 3	
		絕緣阻抗 Insulation Resistance	$\Delta C 50\%$ of minimum specified value	
		靜電容量變化率 Capacitance Change	$\Delta C \pm 5\%$ 以內 Within $\pm 5\%$	
		散逸因數變化量 Dissipation Factor Change	$\Delta C 0.2\%$ max at 1KHz ( $20^\circ\text{C}$ )	