

METALLIZED POLYPROPYLENE FILM CAPACITOR

FEATURES

- Metallized polypropylene structure
- Low loss at high frequency
- Small inherent temperature rise
- Flame retardant epoxy resin powder coating (UL94/V-0)

TYPICAL APPLICATIONS

- Widely used in high frequency, DC, AC and pulse circuits
- Providing optimum performance with small size in S-c orrection circuits for colour TV set
- Specially designed for S-correction circuits of large screen monitor and colour TV
- Suitable for the situation where applies high frequency and high current pulse



CBB21

OUTLINE DRAWING

<p>W</p> <p>H</p> <p>T</p> <p>P±1.0</p> <p>Y</p> <p>d±0.05</p>	Forming Lead Shapes			
	I	II	III	IV
	P ≥ F		P < F	
	0mm≤P-F≤3mm	3mm<P-F≤8mm	3mm<F-P≤5mm	0mm<F-P≤3mm
F±1.0mm; A≤5.0mm; B=4.5±0.5mm				

SPECIFICATIONS

Reference Standard	GB/T 14579(IEC 60384-17)
Climatic Category	40/105/21
Rated temperature	85°C
Operating Temperature	-40°C~105°C (+85°C to +105°C: decreasing factor 1.25% per °C for V_R (DC))
Rated Voltage	100V/160V, 250V, 400V, 630V, 1000V/1250V
Capacitance Range	0.0010μF ~ 3.3μF
Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)
Voltage Proof	1.6U _R (5s)
Dissipation Factor	≤10×10 ⁻⁴ (20°C, 1kHz)
Insulation Resistance	≥50 000MΩ, C _R ≤ 0.33μF ≥15 000s, C _R > 0.33μF (20°C, 100V, 1min)

TEST METHOD AND PERFORMANCE

No.	Item	Performance	Test method(IEC 60384-17)
1	Solderability	Good quality of tinning	Solder temperature: 245°C ± 5°C Immersion time: 2.0s ± 0.5s
2	Initial measurement	Capacitance Tgδ: 1kHz, C > 1.0μF 10kHz, C ≤ 1.0μF	
	Terminal strength	There shall be no visible damage	Tension: 0.6 ≤ Φd ≤ 0.8mm, 10N Φd = 1.0mm, 20N Bend: 0.6 ≤ Φd ≤ 0.8mm, 5N Φd = 1.0mm, 10N The terminals shall be bent 2 times in each direction.
	Resistance to solder heat	There shall be no visible damage	Solder temperature: 260°C ± 5°C Immersion time: 10s ± 1s
	Final measurement	ΔC/C ≤ ±3% (relative to the initial value) Increase of tgδ: ≤ 0.004 (10kHz, C ≤ 1.0μF) ≤ 0.004 (1kHz, C > 1.0μF)	
3	Initial measurement	Capacitance, Tgδ: 1kHz, C > 1.0μF 10kHz, C ≤ 1.0μF	
	Rapid change of temperature	There shall be no evidence of deterioration.	θ _A = -55°C, θ _B = +85°C 5 cycles Duration: t = 30min
	Vibration	There shall be no evidence of deterioration.	Amplitude 0.75mm or acceleration 98m/s ² (whichever is the smaller severity), f: 10Hz to 500Hz. Three directions, 2h for each direction, total 6h.

No.	Item	Performance	Test method(IEC 60384-17)
3	Bump	There shall be no evidence of deterioration.	4000 times, Acceleration: 390m/s ² , Pulse duration, 6ms
	Final measurement	$\Delta C/C \leq \pm 3\%$ (relative to the initial value) Increase of tg δ : ≤ 0.004 ($C \leq 1.0\mu F$) ≤ 0.004 ($C > 1.0\mu F$) IR: $\geq 50\%$ of the rated value	
4	Initial measurement	Capacitance, Tg δ : 1kHz, $C > 1.0\mu F$ 10kHz, $C \leq 1.0\mu F$	
	Dry heat		+85°C, 16h
	Damp heat, Cyclic		Test Db, Severity: b, the first cycle
	Cold		-40°C, 2h
	Low air pressure	There shall be no permanent breakdown, flashover or other harmful deformation when applying U_R at the last 1 minute.	15°C~ 35°C, 8.5kPa, 1h,
	Damp heat, cyclic other		Test Db, Severity b, the other cycles, Applying U_R for 1 minute after the test finished.
	Final measurement	There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of tg δ : ≤ 0.005 (10kHz, $C \leq 1.0\mu F$) ≤ 0.005 (1kHz, $C > 1.0\mu F$) IR: $\geq 50\%$ of the rated value	
5	Damp heat steady state	There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of tg $\delta \leq 0.005$ IR: $\geq 50\%$ of the rated value	Temperature: 40°C $\pm 2^\circ C$ Humidity: 93 - 3 ⁺² %RH Duration: 21 days
6	Endurance	$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of tg δ : ≤ 0.004 (10kHz, $C \leq 1.0\mu F$) ≤ 0.004 (1kHz, $C > 1.0\mu F$) IR: $\geq 50\%$ of the rated value	Temperature: +85°C Voltage: 1.25 $\times U_R$ Duration: 1 000h
7	Temperature characteristic	Measuring capacitance at test point b, d, f: Characteristic at lower category temperature -40°C: $0 \leq (C_b - C_d)/C_d \leq +3\%$ Characteristic at upper category temperature +85°C: $-3.25\% \leq (C_f - C_d)/C_d \leq 0$	Static method: The capacitors should be kept at the following temperature in turn: a. (+20 ± 2) °C b. (-40 ± 2) °C d. (20 ± 2) °C f. (+85 ± 2) °C g. (+20 ± 2) °C
8	Charging and discharging	$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of tg δ : ≤ 0.005 (10kHz, $C \leq 1.0\mu F$) ≤ 0.005 (1kHz, $C > 1.0\mu F$) IR: $\geq 50\%$ of the rated value	Times: 10 000 Duration of charging: 0.5s Duration of discharging: 0.5s Charging voltage: rated voltage Charging resistance: 220/ C_R (Ω) Discharging resistance: $R = 10/C_R$ (Ω) or 20 (whichever is the greater) C_R : rated capacitance (μF)