

# POLYESTER/POLYPROPYLENE FILM METAL FOIL CAPACITOR(INDUCTIVE)

## CH11

### FEATURES

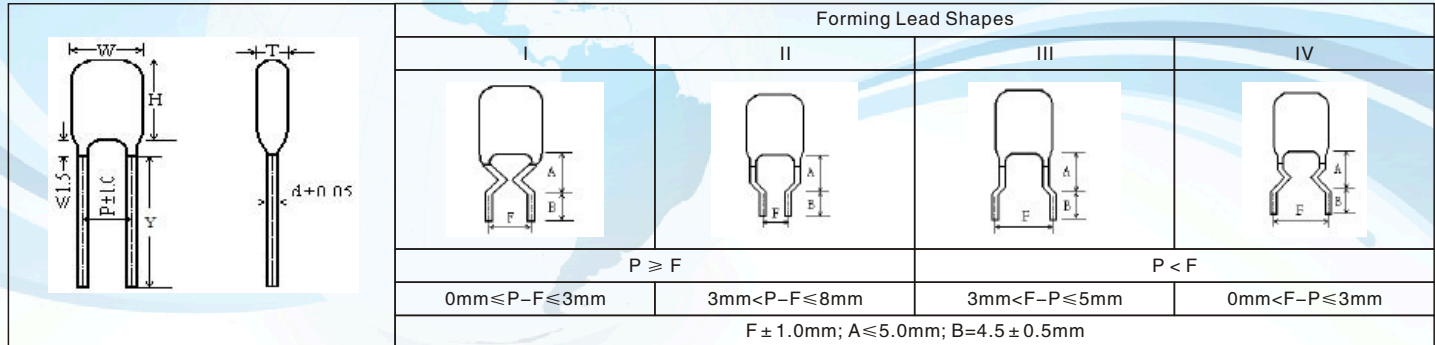
- Polyester/Polypropylene film/Foil, inductive wound construction
- Temperature coefficient of capacitance at a certain temperature range is small and similar to polycarbonate
- Low loss at high frequency
- High insulation resistance, good capacitance stability
- Epoxy resin vacuum-dipped

### TYPICAL APPLICATIONS

- Suitable for timing circuit and oscillation circuit, etc.



### OUTLINE DRAWING



### SPECIFICATIONS

Reference Standard	GB/T 6346(IEC 60384-11)
Climatic Category	55/105/21
Rated temperature	85℃
Operating Temperature	-55℃~105℃ (+85℃ to +105℃: decreasing factor 1.25% per ℃ for VR(dc))
Rated Voltage	1 000V/1 200V
Capacitance Range	0.00051 μ F ~ 0.010 μ F
Capacitance Tolerance	± 5%(J), ± 10%(K), ± 20%(M),
Voltage Proof	2.0U <sub>R</sub> (5s) ≤ 0.5% ( 20℃, 1kHz )
Dissipation Factor	≤ 0.5% ( 20℃, 1kHz )
Insulation Resistance	≥ 50 000MΩ ( 20℃, 1min)

### TEST METHOD AND PERFORMANCE

No.	Item	Performance	Test method (IEC60384-11)
1	Solderability	Good quality of tinning	Solder temperature: 245℃ ± 5℃ Immersion time: 2.0s ± 0.5s
2	Initial measurement	Capacitance	
	Terminal strength	There shall be no visible damage	Tension: 5N(Φ d=0.5) 10N(Φ d≥0.6) Bend: 2.5N(Φ d=0.5) 5N(Φ d≥0.6) The terminals shall be bent 2 times in each direction.
	Resistance to solder heat	There shall be no visible damage	Solder temperature: 260℃ ± 5℃ Immersion time: 10s ± 1s
	Final measurement	ΔC/C ≤ ± 2%(relative to the initial value)	
3	Initial measurement	Capacitance, tg δ : 1kHz	
	Rapid change of temperature	There shall be no evidence of deterioration	θ <sub>A</sub> = -55° C, θ <sub>B</sub> = +85° C 5 cycles, Duration: t=30min
	Vibration	There shall be no evidence of deterioration	98m/s <sup>2</sup> (whichever is the smaller severity), f: 10Hz to 500Hz. Three directions, 2h for each direction, total 6h
	Bump	There shall be no evidence of deterioration	4000 times, Acceleration: 390m/s <sup>2</sup> , Pulse duration, 6ms
	Final measurement	ΔC/C ≤ ± (2%+2pF) (relative to the initial value) Tg δ ≤ 0.005 (1KHz)	
4	Climate sequence	Initial measurement	Capacitance, Tg δ : 1kHz
		Dry heat	+85℃, 16h
		Damp heat, Cyclic	Test Db, Severity: b, the first cycle

No.	Item	Performance	Test method (IEC60384-11)
4	Cold		-55℃, 2h
	Low air pressure	There shall be no permanent breakdown, flashover or other harmful deformation when applying UR at the last 1 minute	15℃~35℃, 8.5kPa, 1h,
	Damp heat, cyclic other		Test Db, Severity b, the other cycles, Applying UR for 1 minute after the test finished
	Final measurement	There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm (2\%+2pF)$ (relative to the initial value) $tg \delta \leq 0.005(1KHz)$ or 1.2times initial value (whichever is the greater) $IR: \geq 50\%$ of the rated value	
5	Damp heat steady state	There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm (2\%+2pF)$ (relative to the initial value) $tg \delta \leq 0.005(1KHz)$ or 1.2times initial value (whichever is the greater) $IR: \geq 50\%$ of the rated value	Temperature: $40\text{℃} \pm 2\text{℃}$ Humidity: $93^{+2}_{-3}\%$ RH Duration: 21days
6	Endurance	There shall be no evidence of deterioration and the marking shall be legible $\Delta C/C \leq \pm (2\%+2pF)$ (relative to the initial value) $tg \delta \leq 0.005(1KHz)$ or 1.2times initial value (whichever is the greater) $IR: \geq 50\%$ of the rated value	Temperature: +85℃ Voltage: $1.5 \times U_a$ Duration: 1 000h
7	Temperature characteristic	Measuring capacitance at test point b, d, f : Characteristic at lower category temperature -55℃ $-8\% \leq (C_b - C_d)/C_d \leq 0\%$ Characteristic at upper category temperature +85℃: $0\% \leq (C_f - C_d)/C_d \leq +5\%$	Static method: The Capacitors should be kept at the following temperature in turn: a(+20±2)℃, b(-55±2)℃, d(20±2)℃ f(+85±2)℃, g(+20±2)℃