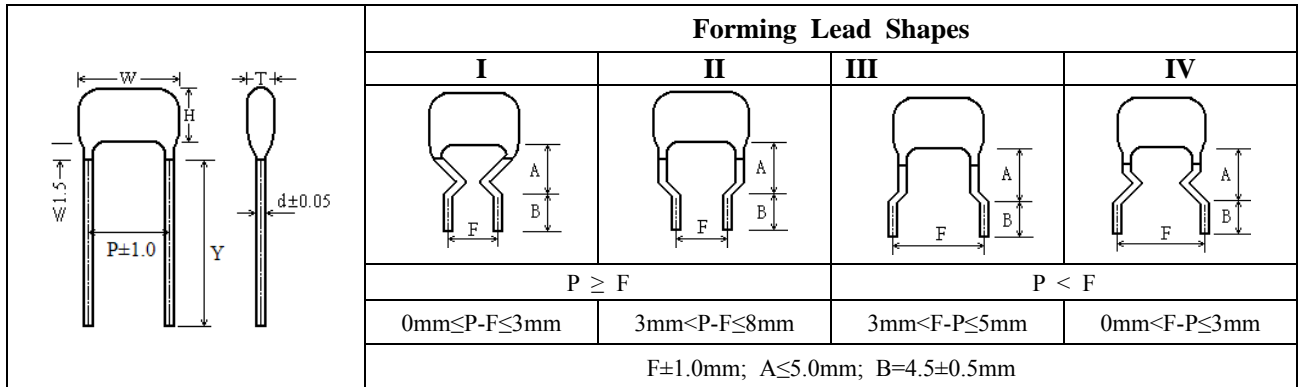


■外形图 Outline Drawing



■特点

- 专门设计用于与 100~240Vac 电源串联的电容降压电路应用场合，如电表、LED 驱动等
- 金属化聚丙烯
- 自愈性能优异，能承受浪涌电压冲击
- 长期负载下优异的电容容量稳定性
- 阻燃环氧粉末包封 (UL94/V-0)

■ Features

- This is specifically designed for applications in serial with the 100~240Vac main, i.e.: capacitive divider, for example, energy
- Metallized Polypropylene structure
- Good self-healing properties, withstanding surge voltage stressing
- Long stability of capacitance
- Flame resistant epoxy resin powder coating (UL94/V-0)

■ 技术要求 Specifications

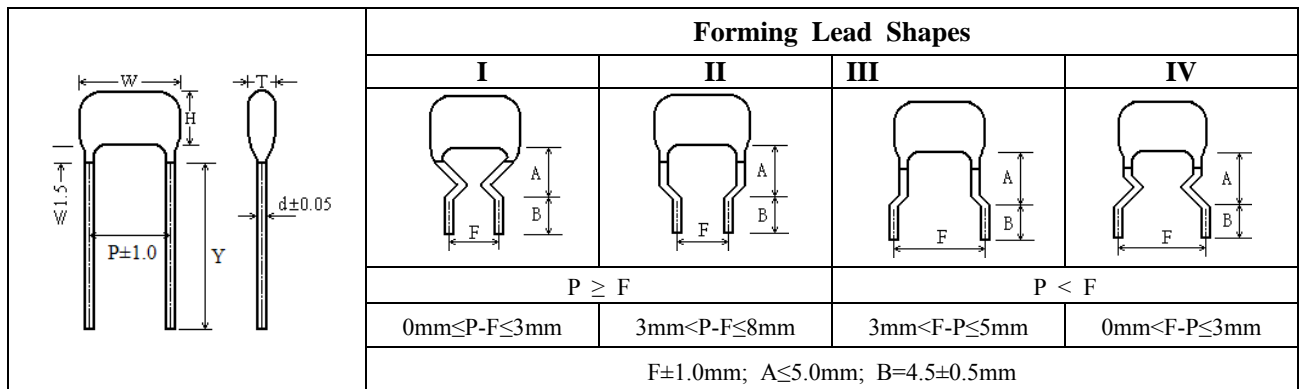
引用标准 Reference Standard	GB/T 14579 (IEC60384-17)		
气候类别 Climatic Category	40/085/21		
额定温度 Rated temperature	85°C		
工作温度范围 Operating Temperature Range	-40°C ~ +85°C		
额定电压 Rated Voltage (U_R)	230Vac	250Vac	275Vac
最大连续直流电压 Maximum continuous DC voltage	400Vdc	560Vdc	630Vdc
电容量范围 Capacitance Range	0.033 μ F ~ 4.7 μ F	0.010 μ F ~ 4.0 μ F	0.10F ~ 1.0 μ F
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $\pm 20\%$ (M)		
耐电压 (引线之间) Voltage Proof (Between Terminals)	640Vdc (2s)	900Vdc (2s)	1500Vdc (2s)
绝缘电阻 Insulation Resistance	$\geq 15\ 000\text{M}\Omega$, $C_R \leq 0.33\mu\text{F}$ $\geq 5\ 000\text{s}$, $C_R > 0.33\mu\text{F}$ (20°C, 100V, 1min)		
损耗角正切	$\leq 10 \times 10^{-4}$ (1kHz, 20°C) Typical value 2×10^{-4}		

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: ≤0.003 (10kHz,C≤1.0μF) ≤0.002 (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 =-40°C, θ _B =+85°C 5 cycles, Duration: t=30min
3	Vibration	There shall be no evidence of deterioration.	Amplitude 0.75mm or acceleration 100m/s ² (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.	4 000 times, Acceleration: 400m/s ² ,Pulse duration, 6ms
	Final measurement	ΔC/C ≤±3%(relative to the initial value) Increase of tgδ: ≤0.003 (10kHz, C≤1.0μF) ≤0.002 (1kHz, C>1.0μF) IR: ≥ 50% of the rated value	
4	climate sequence	Initial measurement	Capacitance Tgδ:1kHz, C>1.0μF 10kHz, C≤1.0μF
		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

No.	Item	Performance	Test method(IEC 60384-17)
4	Damp heat, cyclic other		Test Db, Severity b, the other cycles, Applying U_R for 1 min within 15 min after the test finished.
	climate sequence (continue) 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 $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) 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 $\text{tg}\delta \leq 0.002$ IR: $\geq 50\%$ of the rated value	Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$ Humidity: $93 \pm 2_{-3} \% \text{RH}$ Duration: 21 days Applying U_R for 1 min Within 15 min after the test finished.
6	Endurance	$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	Rate Temperature: $+85^\circ\text{C}$ Voltage: $1.25 \times U_R$ (50Hz) 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 $+85^\circ\text{C}$: $-3.25\% \leq (C_f - C_d)/C_d \leq 0$	Static method: The capacitors should be kept at the following temperature in turn: a. $(+20 \pm 2)^\circ\text{C}$, b. $(-40 \pm 3)^\circ\text{C}$, d. $(20 \pm 2)^\circ\text{C}$, f. $(+85 \pm 2)^\circ\text{C}$, g. $(+20 \pm 2)^\circ\text{C}$
8	Charging and discharging	$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) 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: $220/C_R (\Omega)$ Discharging resistance: $R = 10/C_R (\Omega)$ or 20Ω (whichever is the greater) C_R : rated capacitance (μF)

■ 外形图 Outline Drawing



■ 特点

- 金属化聚丙烯
- 高频损耗小
- 内部升温小
- 阻燃环氧粉末包封(UL94/V-0)

■ Features

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

■ 主要用途

- 广泛应用于高频、直流、交流和脉冲电路中
- 适用于要求体积小，性能优异的彩色 S 校正电路
- 专为大屏幕显示器及彩电的 S 校正电路设计
- 适用于各种高频、大电流场合

■ Typical application

- Widely used in high frequency, DC, AC and pulse circuits
- Providing optimum performance with small size in S-correction 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

■ 技术要求 Specifications

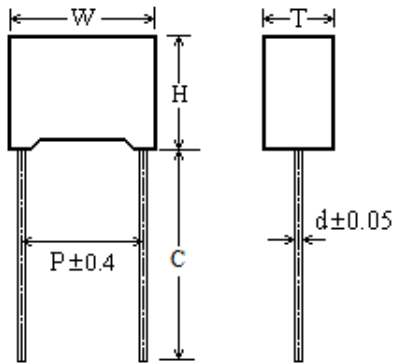
引用标准 Reference Standard	GB/T 14579(IEC 60384-17)
气候类别 Climatic Category	40/105/21
额定温度 Rated temperature	85℃
工作温度范围 Operating temperature	-40℃~105℃ (+85℃ to +105℃: decreasing factor 1.25% per °C for VR(dc))
额定电压 Rated Voltage	100V/160V, 250V, 400V, 630V, 1000V/1250V
电容量范围 Capacitance Range	0.0010 ~ 3.3μF
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)
耐电压 Voltage Proof	1.6U _R (5s)
损耗角正切 Dissipation Factor	≤10×10 ⁻⁴ (20℃, 1kHz)
绝缘电阻 Insulation Resistance	≥50 000MΩ, C _R ≤0.33μF ≥15 000s, C _R >0.33μF (20℃, 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 =-40°C, θ _B =+85°C 5 cycles, Duration: t=30min
3	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.
	Bump	There shall be no evidence of deterioration.	4000 times, Acceleration: 390m/s ² ,Pulse duration, 6ms
	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) IR: ≥ 50% of the rated value	
4	climate sequence	Initial measurement	Capacitance Tgδ: 1kHz, C>1.0μF 10kHz, C≤1.0μF
		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,

No.	Item		Performance	Test method(IEC 60384-17)
4	climate sequence (continue)	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 $\text{tg}\delta$: ≤ 0.005 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.005 (1kHz, $C > 1.0\mu\text{F}$) 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 $\text{tg}\delta \leq 0.002$ IR: $\geq 50\%$ of the rated value	Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$ Humidity: $93 \pm \frac{2}{3} \% \text{RH}$ Duration: 21 days
6	Endurance		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.004 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.004 (1kHz, $C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	Temperature: $+85^\circ\text{C}$ Voltage: $1.25 \times U_R$ (50Hz) 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 $+85^\circ\text{C}$: $-3.25\% \leq (C_f - C_d)/C_d \leq 0$	Static method: The capacitors should be kept at the following temperature in turn: a. $(+20 \pm 2)^\circ\text{C}$ b. $(-40 \pm 2)^\circ\text{C}$ d. $(20 \pm 2)^\circ\text{C}$ f. $(+85 \pm 2)^\circ\text{C}$ g. $(+20 \pm 2)^\circ\text{C}$
8	Charging and discharging		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.005 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.005 (1kHz, $C > 1.0\mu\text{F}$) 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: $220/C_R (\Omega)$ Discharging resistance: $R = 10/C_R (\Omega)$ or 20Ω (whichever is the greater) C_R : rated capacitance (μF)

外形图 Outline Drawing



$W\pm 0.4$, $H\pm 0.4$, $T\pm 0.4$

特点

- 专门设计用于与电源串联的电容降压电路场合，如电表、LED 驱动模块等
- 金属化聚丙烯膜结构
- 自愈性能优异，能承受过电压冲击
- 长期负载下优异的电容容量稳定性
- 优异的防潮性能
- 优异的阻燃性能

Features

- This is specifically designed for applications in serial with the main, i.e.: capacitive divider, for example, energy meter, LED driver etc.
- Metallized polypropylene structure
- Good self-healing properties, withstanding overvoltage stressing
- Long stability of capacitance
- Good properties in damp environment
- Excellent passive flame resistant abilities

技术要求 Specifications

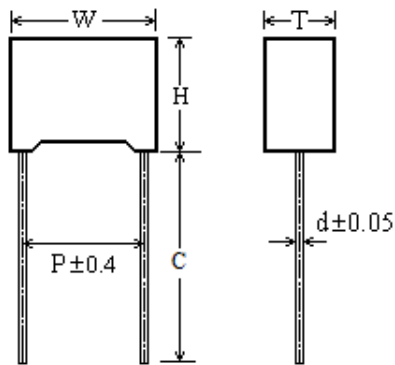
引用标准 Reference Standard	GB/T 14579 (IEC 60384-17)		
气候类别 Climatic Category	55/105/56		
额定温度 Rated temperature	85℃		
工作温度范围 Operating temperature	-55℃~105℃ (+85℃ to +105℃: decreasing factor 1.25% per °C for U_R)		
额定电压 Rated Voltage	230Vac	250Vac	275 Vac
最大连续直流电压 Maximum continuous DC voltage	400Vdc	560Vdc	630Vdc
电容量范围 Capacitance Range	0.033μF~4.7μF	0.010μF~4.0μF	0.010μF~2.2μF
电容量偏差 Capacitance Tolerance	±5%(J), ±10% (K), ±20% (M)		
耐电压 (引线之间) Voltage Proof (Between Terminals)	640Vdc(2s)	900Vdc(2s)	1 500Vdc(2s)
绝缘电阻 Insulation Resistance	$\geq 15\ 000M\Omega$, $C_R \leq 0.33\mu F$ $\geq 5\ 000s$, $C_R > 0.33\mu F$		
损耗角正切 Dissipation Factor	$\leq 10 \times 10^{-4}$ (1kHz, 20℃)		$\leq 20 \times 10^{-4}$ (10kHz, 20℃)

Test Method And Performance

No.	Item	Performance	Test method(IEC 60384-17)
1	Solderability	Good quality of tinning	Solder temperature: $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Immersion time: $2.0\text{s} \pm 0.5\text{s}$
2	Initial measurement	Capacitance $\text{Tg}\delta$: 1kHz, $C > 1.0\mu\text{F}$ 10kHz, $C \leq 1.0\mu\text{F}$	
	Terminal strength	There shall be no visible damage	Tension: $0.6 \leq \phi d \leq 0.8\text{mm}$, 10N $\phi d = 1.0\text{mm}$, 20N Bend: $0.6 \leq \phi d \leq 0.8\text{mm}$, 5N $\phi d = 1.0\text{mm}$, 10N The terminals shall be bent 2 times in each direction.
	Resistance to solder heat	There shall be no visible damage	Solder temperature: $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Immersion time: $10\text{s} \pm 1\text{s}$
	Final measurement	$\Delta C/C \leq \pm 3\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$)	
3	Initial measurement	Capacitance $\text{Tg}\delta$: 1kHz, $C > 1.0\mu\text{F}$ 10kHz, $C \leq 1.0\mu\text{F}$	
	Rapid change of temperature	There shall be no evidence of deterioration.	$\theta_A = -55^{\circ}\text{C}$, $\theta_B = +105^{\circ}\text{C}$ 5 cycles, Duration: $t = 30\text{min}$
3	Vibration	There shall be no evidence of deterioration.	Amplitude 0.75mm or acceleration 100m/s^2 (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.	4 000 times, Acceleration: 400m/s^2 , Pulse duration, 6ms
	Final measurement	$\Delta C/C \leq \pm 3\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	
4	climate sequence	Initial measurement	Capacitance $\text{Tg}\delta$: 1kHz, $C > 1.0\mu\text{F}$ 10kHz, $C \leq 1.0\mu\text{F}$
		Dry heat	$+105^{\circ}\text{C}$, 16h
		Damp heat, Cyclic	Test Db, Severity: b, the first cycle
		Cold	-55°C , 2h
		Low air pressure	There shall be no permanent breakdown, flashover or other harmful deformation $15^{\circ}\text{C} \sim 35^{\circ}\text{C}$, 8.5kPa, 1h, Applying U_R during the last 5 min.

No.	Item		Performance	Test method(IEC 60384-17)
4	climate sequence (continue)	Damp heat, cyclic other		Test Db, Severity b, the other cycles, Applying U_R for 1 min within 15 min 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 $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) 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 $\text{tg}\delta \leq 0.002$ IR: $\geq 50\%$ of the rated value	Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$ Humidity: $93 \pm 2\%$ RH Duration: 56 days Applying U_R for 1 min Within 15 min after the test finished.
6	Endurance		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	Rate Temperature: $+85^\circ\text{C}$ Voltage: $1.25 \times U_R$ (50Hz) Duration: 1 000h
7	Temperature characteristic		Measuring capacitance at test point b, d, f: Characteristic at lower category temperature -55°C : $0 \leq (C_b - C_d)/C_d \leq +3.75\%$ Characteristic at upper category temperature $+100^\circ\text{C}$: $-4\% \leq (C_f - C_d)/C_d \leq 0$	Static method: The capacitors should be kept at the following temperature in turn: a. $(+20 \pm 2)^\circ\text{C}$, b. $(-55 \pm 3)^\circ\text{C}$, d. $(20 \pm 2)^\circ\text{C}$, f. $(+100 \pm 2)^\circ\text{C}$, g. $(+20 \pm 2)^\circ\text{C}$
8	Charging and discharging		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.002 (1kHz, $C > 1.0\mu\text{F}$) 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: $220/C_R(\Omega)$ Discharging resistance: $R = 10/C_R(\Omega)$ or 20Ω (whichever is the greater) C_R : rated capacitance (μF)

■外形图 Outline Drawing



$W \pm 0.4$, $H \pm 0.4$, $T \pm 0.4$

■特点

- 金属聚丙烯膜
- 高频损耗小
- 内部温升小
- 塑料外壳 (UL94 V-0), 阻燃环氧填充

■主要用途

- 广泛应用于高频, 直流, 交流和脉冲电路中
- 电视机, 显示器 S 校正电路

■Features

- Metallized polypropylene structure
- Low loss at high frequency
- Small inherent temperature rise
- Plastic case (UL94 V-0), Epoxy resin sealing

■Typical application

- Widely used in high frequency, DC, AC and pulse circuits
- S-correction circuits for TV sets and monitors

■技术要求 Specifications

引用标准 Reference Standard	GB/T 10190 (IEC 60384-16)
气候类别 Climatic Category	40/105/21
额定温度 Rated temperature	85°C
工作温度范围 Operating temperature	-40°C~105°C (+85°C to +105°C: decreasing factor 1.25% per °C for VR(DC))
额定电压 Rated Voltage	160Vdc(90Vac); 250Vdc(160Vac); 400Vdc(220Vac); 630Vdc(250Vac); 1 000Vdc(400Vac); 1 600Vdc(600Vac); 2 000Vdc(700Vac)
电容量范围 Capacitance Range	0.00056~15.0μF
电容量偏差 Capacitance Tolerance	±2% (G), ±3% (H), ±5% (J), ±10% (K), ±20% (M)
耐电压 Voltage Proof	1.6U _R (5s)
损耗角正切 Dissipation Factor	≤10×10 ⁻⁴ (20°C, 1kHz)
绝缘电阻 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: $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Immersion time: $2.0\text{s} \pm 0.5\text{s}$
2	Initial measurement	Capacitance Tg δ : 1kHz, $C > 1.0\mu\text{F}$ 10kHz, $C \leq 1.0\mu\text{F}$	
	Terminal strength	There shall be no visible damage	Tension: $0.6 \leq \phi d \leq 0.8\text{mm}$, 10N $\phi d = 1.0\text{mm}$, 20N Bend: $0.6 \leq \phi d \leq 0.8\text{mm}$, 5N $\phi d = 1.0\text{mm}$, 10N The terminals shall be bent 2 times in each direction.
	Resistance to solder heat	There shall be no visible damage	Solder temperature: $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Immersion time: $10\text{s} \pm 1\text{s}$
	Final measurement	$\Delta C/C \leq \pm 3\%$ (relative to the initial value) Increase of tg δ : ≤ 0.004 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.004 (1kHz, $C > 1.0\mu\text{F}$)	
3	Initial measurement	Capacitance Tg δ : 1kHz, $C > 1.0\mu\text{F}$ 10kHz, $C \leq 1.0\mu\text{F}$	
	Rapid change of temperature	There shall be no evidence of deterioration.	$\theta_A = -40^{\circ}\text{C}$, $\theta_B = +85^{\circ}\text{C}$ 5 cycles, Duration: $t = 30\text{min}$
3	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.
	Bump	There shall be no evidence of deterioration.	4 000 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 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.004 (1kHz, $C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	
4	climate sequence	Initial measurement	Capacitance Tg δ : 1kHz, $C > 1.0\mu\text{F}$ 10kHz, $C \leq 1.0\mu\text{F}$
		Dry heat	$+85^{\circ}\text{C}$, 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. $15^{\circ}\text{C} \sim 35^{\circ}\text{C}$, 8.5kPa, 1h,

No.	Item		Performance	Test method(IEC 60384-17)
4	climate sequence (continue)	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 $\text{tg}\delta$: ≤ 0.005 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.005 (1kHz, $C > 1.0\mu\text{F}$) $\text{IR}: \geq 50\%$ 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 $\text{tg}\delta \leq 0.002$ $\text{IR}: \geq 50\%$ of the rated value	Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$ Humidity: $93 \pm \frac{2}{3} \% \text{RH}$ Duration: 21 days
6	Endurance		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.004 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.004 (1kHz, $C > 1.0\mu\text{F}$) $\text{IR}: \geq 50\%$ of the rated value	Temperature: $+85^\circ\text{C}$ Voltage: $1.25 \times U_R$ (50Hz) 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 $+85^\circ\text{C}$: $-3.25\% \leq (C_f - C_d)/C_d \leq 0$	Static method: The capacitors should be kept at the following temperature in turn: a. $(+20 \pm 2)^\circ\text{C}$, b. $(-40 \pm 2)^\circ\text{C}$, d. $(20 \pm 2)^\circ\text{C}$, f. $(+85 \pm 2)^\circ\text{C}$, g. $(+20 \pm 2)^\circ\text{C}$
8	Charging and discharging		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.005 (10kHz, $C \leq 1.0\mu\text{F}$) ≤ 0.005 (1kHz, $C > 1.0\mu\text{F}$) $\text{IR}: \geq 50\%$ of the rated value	Times: 10 000 Duration of charging: 0.5s Duration of discharging: 0.5s Charging voltage: rated voltage Charging resistance: $220/C_R (\Omega)$ Discharging resistance: $R = 10/C_R (\Omega)$ or 20Ω (whichever is the greater) C_R : rated capacitance (μF)