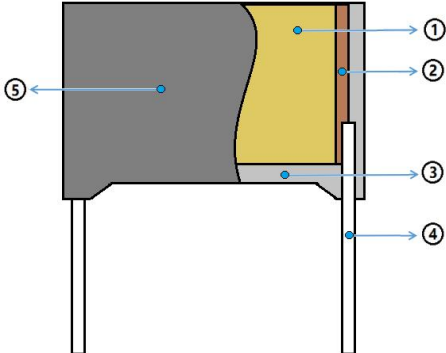
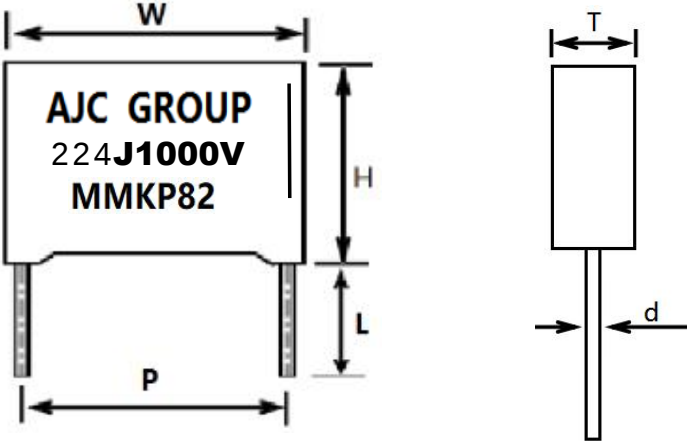


MMKP82 Double-sided metallized polypropylene film capacitor

Product structure drawing

Graphical	illustration
	① Capacitor core ② Metal spraying tin-zinc alloy ① epoxy resin ② CP wire ③ PBT Plastic case

Outline style

Graphical						Printing mark	illustration		
						AJC GROUP	AJC Brand		
						224	Capacity		
						J	Capacity tolerance		
						1000V	Rated Voltage		
						MMKP82	Product type series		
N O	Specification	Cap (μF)	W ±0.5	H ±0.5	T ±0.5	P ±0.5	d ±0.05	L ±2	Remark
1	224J1000V	0.22	26	21	10	22.5	0.8	20	Gray color

Size: Unit mm

MMKP82 Double-sided metallized polypropylene film capacitor

■ Feature:

- Excellent self-healing performance
- Excellent High Frequency Performance
- Excellent Temperature Characteristics
- Excellent moistureproof performance
- Excellent flame retardancy
- Low Loss Value and High Insulation Resistance
- Excellent Capacity Stability under Long-term Load

■ Main application:

- Widely used in high voltage and high frequency pulse circuit
- Suitable for LC resonant circuit

■ Technical specification:

Reference standard	GB/T 10190 (IEC 60384-16)	
Climate classification	40/105/56	
Flame retardant grade	B	
Rated voltage	630V、1000V、1600V、2000V	
Working temperature range	-40℃ ~ +105℃	
Capacitance range	0.0001μF~0.47μF	
Capacitance tolerance	G (±2%) , H (±3%) , J (±5%) , K (±10%) , M (±20%)	
Withstand voltage	1.6UR (5S)	
Tangent of loss angle	≤ 0.1% (1KHz , 20℃)	
Insulation resistance	≥ 30000MΩ; CR ≤ 0.33μF ≥ 10000S; CR > 0.33μF	20℃, 100V, 60S

MMKP82 Double-sided metallized polypropylene film capacitor

■ Characteristic test

NO	Item	Performance requirement	Test method
1	Initial measurement	Capacitance Loss Angle Tangent: 1KHz	
	Terminal tensile strength	No visible damage to appearance	Tensile test Ual: pull: $0.5 < \varphi d \leq 0.8 \text{mm}$; 10N Bending test Ub: Second bending in each direction Reverse : Two consecutive twists 180 degrees
	Welding heat resistance	No visible damage, clear marking	Welding groove method Tb, Method 1A $260 \pm 5^\circ\text{C}$, $5 \pm 1\text{S}$
	Final measurement	Capacitance: $\Delta C/C < \text{Initial Measured Value (+5\%)}$ Loss tangent: The increase of DF is less than 0.01 (1KHz)	
2	Initial measurement	Capacitance Loss Angle Tangent: 1KHz	
	Rapid temperature change	No visible damage to appearance	$0_A = -40^\circ\text{C}$, $0 = +105^\circ\text{C}$ 5 cycles, duration: $t = 30 \text{ minutes}$
	Vibration	No visible damage to appearance	Amplitude 0.75 mm or acceleration 98 m/s ² For those with lower degrees, the frequency ranges from 10 Hz to 500 Hz. Direction, 2 hours in each direction, 6 hours in total
	Collision	No visible damage to appearance	4000 times, acceleration 390 m/s ² , pulse duration Time: 6ms
	Final measurement	Capacitance: $C/C < 5\%$ of the initial measurement value. Loss tangent: the increase of DF is less than 0.01 Insulation resistance IR: $> 50\%$ of rated value	
3	Initial measurement	Capacitance Loss Angle Tangent: 1KHz	
	Dry heat		$+105^\circ\text{C}$, 16h
	Circulating damp heat		Test Db, severity b, first cycle
	Cold		-40°C , 2h
	Low atmospheric pressure	In the last 5 minutes at the end of the test, UR is applied without permanent breakdown, flying arc or harmful deformation at the bottom of the shell.	$15 \sim 35^\circ\text{C}$, 8.5Kpa, 1h
	Circulating damp heat	At the end of the experiment, UR was applied for 1 minute.	test Db, severity b, the rest of the cycle

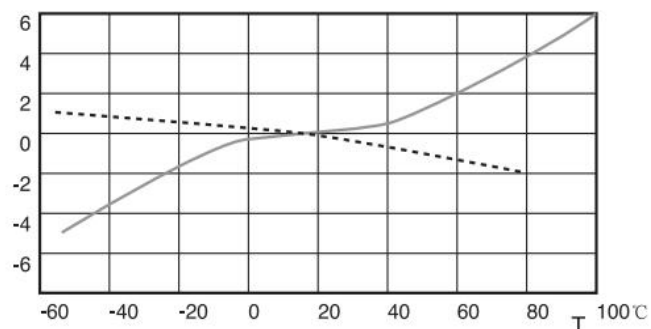
MMKP82 Double-sided metallized polypropylene film capacitor

NO	Item	Performance requirement	Test method
4	Final measurement	No visible damage, clear marking Capacitance: $C/C < 5\%$ of the initial measurement value. Loss tangent: $DF < 0.01$ Voltage withstand: 1.6URDC, 5S no breakdown or arc Insulation resistance IR: $> 50\%$ of rated value	
5	Steady pressure and damp heat	No visible damage, clear marking Capacitance: $C/C < 5\%$ of the initial measurement value. Loss Angle Tangent (1KHz): The increase of DF is less than 0.01 Voltage withstand: 1.6URDC, 5S no breakdown or arc Insulation resistance IR: $> 50\%$ of rated value	Temperature: $40 \pm 2^\circ\text{C}$ Humidity: $93 \pm 2\%$ RH Duration: 56 days
6	Durability	No visible damage, clear marking Capacitance: $C/C < 10\%$ of initial measurement value Loss Angle Tangent (1KHz): The increase of DF is less than 0.01 Voltage withstand: 1.6URDC, 5S no breakdown or arc Insulation resistance IR: $> 50\%$ of rated value	$+105^\circ\text{C}$, 1000h Applying voltage: 1.25UR rated voltage
7	Charging and Discharging	Capacitance: $C/C < 10\%$ of initial measurement value Loss Angle Tangent (1KHz): The increase of DF is less than 0.01 Insulation resistance IR: $> 50\%$ of rated value	Number: 10,000 times Charging duration: 0.5S Discharge duration: 0.5S Charging voltage is rated voltage Charging Resistance: $220/CR$ () or 20 (larger) CR is nominal capacitance (μF)
8	Flame Retardant Test	After leaving the flame, any capacitor will continue to burn for no more than 10 seconds, and the droplets burned by the capacitor shall not ignite the cotton paper laid underneath it.	IEC695-2-2 Needle Flame Method Flame Retardant Level: B Capacitor Volume: $V(\text{mm}^3) < 250$, Flame application time is 5 S Capacitance volume: $250 < V(\text{mm}^3) < 500$, Flame application time is 20 s Capacitance volume: $500 < V(\text{mm}^3) < 1750$, Flame application time is 30 s Capacitance volume: $V(\text{mm}^3) > 1750$, The time of applying flame is 60s.

MMKP82 Double-sided metallized polypropylene film capacitor

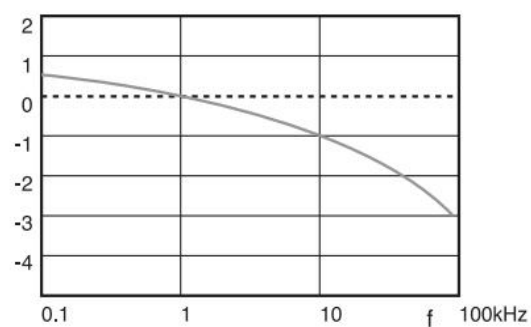
■ Characteristic Chart of Capacitor:

$\Delta C/C$ (%)



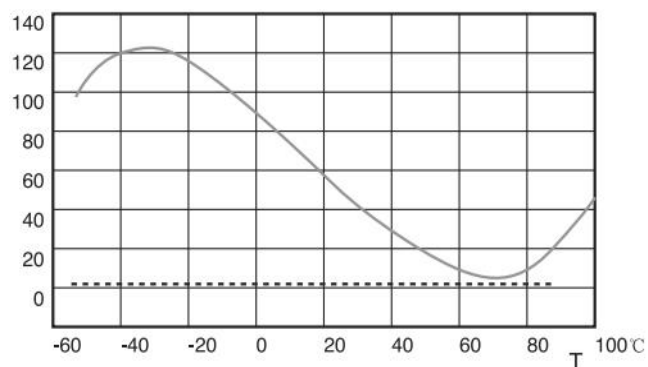
Capacitance vs. temperature at 1kHz

$\Delta C/C$ (%)



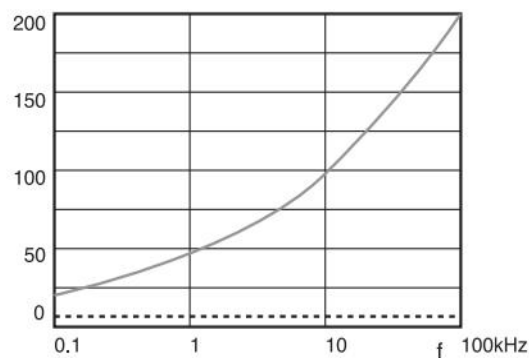
Capacitance vs. frequency (Room temperature)

$\text{tg}\delta$ ($\times 10^{-4}$)



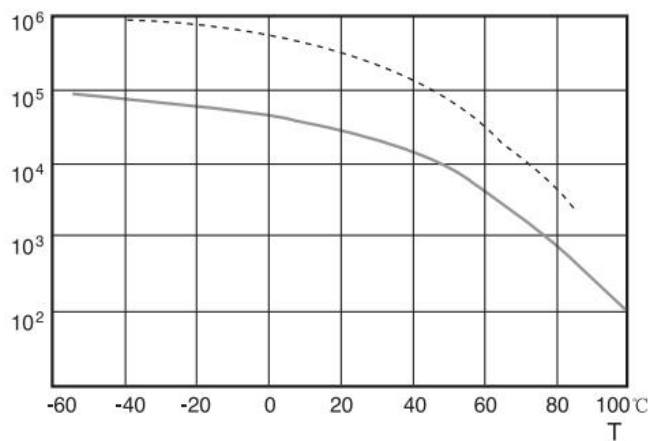
Dissipation factor vs. temperature at 1kHz

$\text{tg}\delta$ ($\times 10^{-4}$)



Dissipation factor vs. frequency (Room temperature)

I.R. (M Ω)



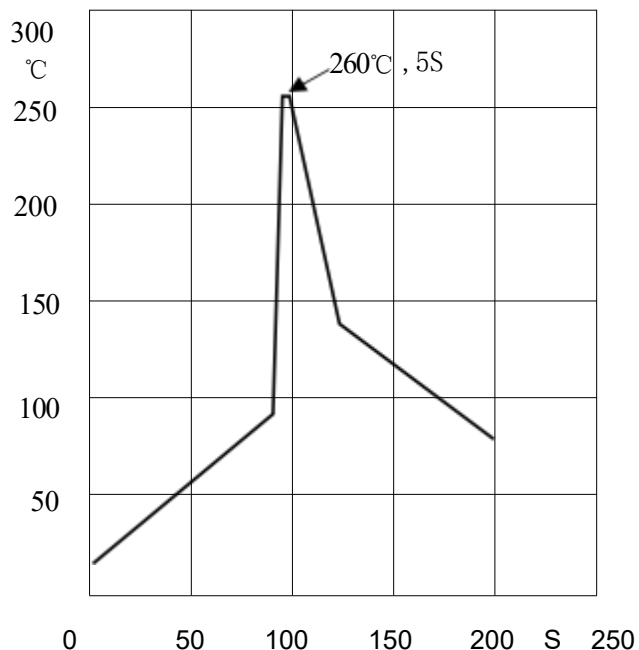
I.R. vs. temperature

聚丙烯薄膜 (Polypropylene Film)

聚酯薄膜 (Polyester Film)

MMKP82 Double-sided metallized polypropylene film capacitor

1.welding conditions:



	temperature	time	Remarks
preheat	110°C	60S	
	100°C	60S	OPP ≤ 7.5
preheating welding	270°C	5S	
	260°C	5S	OPP ≤ 7.5

The temperature of the metallized polypropylene film capacitor product body does not exceed 120°C/60S

The temperature of the metallized polyester film capacitor product body does not exceed 140°C/60S

2.Soldering method with soldering iron:

Soldering iron tip temperature (max)	350°C
welding time	2-3S

Attention: If a second welding is required, it must be done after the capacitor has returned to room temperature.