Metallized Polypropylene Capacitor -Radial

MPT

Construction:

Dielectric : Polypropylene Film .
Electrodes : Al-Zinc Metallization.
Winding : non-inductive type.
Leads : Tinned Wire.
Outer coating : Insulating tape wrapping and epoxy resin end filled

Feature:

Low Dissipation Factor at high frequency.
High stability of capacitance& DF
Self-healing property.
High insulation resistance

Recommended Application:

Timing,Tund, Oscillator circuits.
Temperature compensation circuits.
Telecommunications and data processing.
Professional electronics testing equipment
Industrial instruments.

Electrical Characteristics:

Related Documents	IEC 60384-16 ; CECC 31200
Rated Voltage	250VDC, 400VDC ,630VDC
Rated Temperature	-40°C ~ +85°C.
Usable upper category temperature	+105°C (Derating ratio of rated voltage to +85°C ~ +105°C: 1.5% per °C for Rated Voltage)
Capacitance Range	0.01μF ~ 10.0 μF.
Capacitance Tolerance	± 3% (H) , ± 5% (J) , ± 10% (K)

Dissipation Factor	KHz	C ≤ 0.1uF	0.1 < C ≤ 1.0uF	1.0< C ≤ 3.0uF	3.0 < C ≤5.0uF	5.0 < C≤ 10.0uF
	1	≤ 0.10%	≤ 0.10%	≤ 0.10%	≤ 0.10%	≤ 0.10%
	100	≤ 0.40%	≤ 0.70%	≤ 1.20%	≤ 1.80%	≤ 2.80%

Insulation Resistance	Terminal to Terminal: (at20°C± 5°C) , Voltage charge time : 1 minute. Voltage charge : 100VDC. ≥30000MΩ For C ≤ 0.33uF , ≥ 10000MΩ×u F For C > 0.33uF
Withstand Voltage	Terminal to Terminal: (at20°C± 5°C) 1.6 × V_R applied for 2sec. (cut off current 10mA)

Rated Voltage Pulse Slope d V/d t (V/μs)	length / V_R	14m/m	19m/m	27m/m	33m/m	44m/m
	250VDC	12	8	5	3	2
	400VDC	15	12	7.5	5	3
	630VDC	22	16	12	7	4

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Reliability Test :

Item	Test Method	Requirements
Resistance to soldering heat IEC 60068-2-20”	Solder bath: 260°C± 5°C Immersion time: 10sec± 1sec	Capacitance change $\|\Delta C/C\|$:≤ 1 % DF change Δtan& 0.1% at 1Khz IR: ≥ limit value.
Resistance to vibration IEC 60068-2-6 ”	Frequency range: 10hz to 55hz Amplitude: 1.5 m/m Duration : 6 hours	There shall be no visible damage, no intermittent contact, no open or short circuit
Damp heat ,steady state IEC 60068-2-3”	Temperature: 40°C± 2°C Relative humidity: 90% to 95% Duration : 1000 hours	Capacitance change $\|\Delta C/C\|$:≤ 3 % DF change Δtan& 0.1% at 1Khz IR: ≥ 50% limit value.
Electrical endurance IEC 60384-17”	Temperature: 85°C± 2°C Voltage applied: 1.25× Vr(DC) Duration : 2000 hours	Capacitance change $\|\Delta C/C\|$:≤ 3 % DF change Δtan& 0.1% at 1Khz IR: ≥ 50% limit value.

Cap. (μF) Size unit: m/m

	250VDC			400VDC			630VDC		
Size Cap.	L	D	df	L	D	df	L	D	df
0.01	14.0	5.5	0.6	14.0	5.5	0.6	14.0	6.5	0.6
.015	14.0	6.0	0.6	14.0	6.0	0.6	14.0	7.0	0.6
.022	14.0	7.0	0.6	14.0	7.0	0.6	14.0	8.0	0.6
.033	14.0	6.0	0.6	14.0	7.5	0.6	19.0	8.0	0.6
.047	14.0	6.5	0.6	14.0	8.0	0.6	19.0	9.0	0.8
.068	14.0	7.5	0.6	19.0	8.0	0.6	19.0	10.5	0.8
0.1	14.0	8.0	0.6	19.0	8.5	0.8	27.0	11.5	0.8
0.15	19.0	8.0	0.6	19.0	10.0	0.8	27.0	13.0	0.8
0.22	19.0	9.0	0.8	27.0	9.5	0.8	33.0	13.0	0.8
0.33	19.0	10.5	0.8	27.0	11.5	0.8	33.0	16.0	0.8
0.47	25.0	10.5	0.8	27.0	13.0	0.8	33.0	18.0	0.8
0.68	25.0	12.5	0.8	33.0	14.5	0.8	33.0	20.0	0.8
1.0	25.0	12.5	0.8	33.0	17.5	0.8	38.0	21.0	0.8
1.5	33.0	15.0	0.8	33.0	20.5	0.8	44.0	22.0	0.8
2.2	33.0	17.0	0.8	38.0	22.0	0.8	44.0	27.0	0.8
3.3	33.0	19.0	0.8	44.0	26.0	0.8			
4.7	38.0	20.5	0.8						
6.8	44.0	23.0	0.8						
10.0	44.0	26.0	0.8						