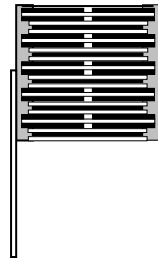








# Metallized Polypropylene Capacitor -Radial

MP3S



-  Double side metallized polyester film.
-  Metallized Polypropylene Film
-  Metal spray layer
-  Connecting wire

## Construction:

- Dielectric : Polypropylene Film .
- Electrodes : Double side metallized polyester film.
- Winding : non-inductive type & internal series connection.
- Leads : Tinned Wire.
- Outer coating : Flame retardant plastic case and epoxy resin filled.

## Feature:

- Low Dissipation Factor at high frequency.
- Excellent corona voltage.
- Very high pulss strength.
- Small in size

## Recommended Application:

- Electronic lighting(ballast&car headlamp).
- Switching power supply circuits.
- Pulse applications with high AC voltage and high Current.

## Electrical Characteristics:

Related Documents	IEC 60384-16				
Rated Voltage	400VDC(250VAC),630VDC(400VAC),1000VDC(600VAC),1600VDC(650VAC) 2000VDC(700VAC)				
Rated Temperature	~ +85°C for Vr(DC), ~ +75°C for Vr(AC).				
Usable upper category temperature	+105°C Derating ratio of rated voltage to +85°C ~ +105°C: 1.25% per °C for Rated Voltage (DC) Derating ratio of rated voltage to +75°C ~ +105°C: 1.35% per °C for Rated Voltage (AC)				
Capacitance Range	0.001 μF ~ 1.5 μF.				
Capacitance Tolerance	± 2% (G) , ± 3% (H) , ± 5% (J) , ± 10% (K)				
Dissipation Factor	KHz	C ≤ 0.1uF	0.1uF < C ≤ 1.0uF	1.0uF ≤ C	
	1	≤ 0.05%	≤ 0.05%	≤ 0.05%	
	10	≤ 0.06%	≤ 0.07%		
	100	≤ 0.15%			
Insulation Resistance	Terminal to Terminal: (at 25°C± 5°C), Voltage charge time : 1minute. Voltage charge : 100VDC. ≥ 50000MΩ For C ≤ 0.1uF , ≥ 10000MΩ×uF For C > 0.1uF				
Withstand Voltage	Terminal to Terminal: (at20°C± 5°C) 1.6 × VR applied for 2sec. (cut off current 10mA) Slow-up voltage speed:100V/sec				
Rated Voltage Pulse Slope dv/dt (V/μs)	Pitch	10m/m	15m/m	22.5m/m	27.5 m/m
	VR				
	400 VDC	1500	900	500	300
	630 VDC	3000	2500	1500	900
	1000 VDC	4800	3300	2100	1000
1600 VDC		6000	3000	2000	
2000 VDC		9500	3500	2300	



# Metallized Polypropylene Capacitor -Radial

**MP3S**

**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 $\Delta \tan\delta$ : 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 $\Delta \tan\delta$ : 0.1% at 1Khz IR: ≥ 50% limit value.
Electrical endurance IEC 60384-2”	Temperature: 85°C± 2°C Voltage applied: 1.25×Vr(DC) Duration : 2000 hours	Capacitance change   $\Delta C/C$   ≤ 3 % DF change $\Delta \tan\delta$ : 0.1% at 1Khz IR: ≥ 50% limit value.

**Cap.( $\mu$ F)**

R.V.	400VDC/250VAC			
Size Cap.	W	H	T	P
0.01	13	9	4	10
0.012	13	9	4	10
0.015	13	9	4	10
0.018	13	9	4	10
0.022	13	10	5	10
0.027	13	11	5	10
0.033	13	11	5	10
0.039	13	12	6	10
0.047	13	12	6	10
0.056	13	12	6	10
0.047	18	11	5	15
0.056	18	11	5	15
0.068	18	12	6	15
0.082	18	12	6	15
0.1	18	13	7	15
0.12	18	13.5	7.5	15
0.15	18	14.5	8.5	15
0.18	18	16	9	15
0.22	18	16	10	15
0.27	18	19	11	15
0.33	18	21	12	15
0.1	26	15	6	22.5
0.12	26	15	6	22.5
0.15	26	15	6	22.5
0.18	26	15	6	22.5
0.22	26	16	7	22.5
0.27	26	17	8	22.5
0.33	26	17	9	22.5
0.39	26	18	9	22.5
0.47	26	19	10	22.5

R.V.	400VDC/250VAC			
Size Cap.	W	H	T	P
0.56	26	20	11	22.5
0.68	26	20	11	22.5
0.33	31	17	8	27.5
0.39	31	18	9	27.5
0.47	31	18	9	27.5
0.56	31	18	9	27.5
0.68	31	20	10	27.5
0.82	31	22	13	27.5
1.0	31	23.5	14	27.5
1.2	31	24.5	15	27.5
1.5	31	28	18	27.5

R.V.	630VDC/400VAC			
Size Cap.	W	H	T	P
0.01	13	10	5	10
0.012	13	11	5	10
0.015	13	12	6	10
0.018	13	12	6	10
0.022	13	13	7	10
0.01	18	11	5	15
0.012	18	11	5	15
0.015	18	11	5	15
0.018	18	11	5	15
0.022	18	11	5	15
0.027	18	11	5	15
0.033	18	12	6	15
0.039	18	12	6	15
0.047	18	13	7	15
0.056	18	13.5	7.5	15

R.V.	630VDC/400VAC			
Size Cap.	W	H	T	P
0.068	18	14	8	15
0.082	18	14.5	8.5	15
0.1	18	16	10	15
0.12	18	18	10	15
0.047	26	15	6	22.5
0.056	26	15	6	22.5
0.068	26	15	6	22.5
0.082	26	15	6	22.5
0.1	26	15	6	22.5
0.12	26	16	7	22.5
0.15	26	17	8	22.5
0.18	26	17	8	22.5
0.22	26	18	9	22.5
0.27	26	20	10	22.5
0.33	26	20	11	22.5
0.39	26	22	12	22.5
0.22	31	18	9	27.5
0.27	31	18	9	27.5
0.33	31	20	10	27.5
0.39	31	20	11	27.5
0.47	31	22	13	27.5
0.56	31	23.5	14	27.5
0.68	31	24.5	15	27.5
0.82	31	26	18	27.5
1.0	31	33	18	27.5



# Metallized Polypropylene Capacitor -Radial

Cap.( $\mu$ F)

R.V.	1000VDC/600VAC			
Size Cap.	W	H	T	P
0.001	13	9	4	10
0.0012	13	9	4	10
0.0015	13	9	4	10
0.0018	13	9	4	10
0.0022	13	9	4	10
0.0027	13	9	4	10
0.0033	13	9	4	10
0.0039	13	10	5	10
0.0047	13	11	5	10
0.0056	13	11	5	10
0.0068	13	11	5	10
0.0082	13	12	6	10
0.01	13	12	6	10
0.012	13	13	7	10
0.0068	18	11	5	15
0.0082	18	11	5	15
0.01	18	11	5	15
0.012	18	11	5	15
0.015	18	11	5	15
0.018	18	11	5	15
0.022	18	12	6	15
0.027	18	13	7	15
0.033	18	13.5	7.5	15
0.039	18	15.5	8	15
0.047	18	17	8	15
0.022	26	15	6	22.5
0.027	26	15	6	22.5
0.033	26	15	6	22.5
0.039	26	15	6	22.5
0.047	26	15	6	22.5
0.056	26	16	7	22.5
0.068	26	16.5	7	22.5
0.082	26	17	8	22.5
0.1	26	18.5	8.5	22.5
0.12	26	19	10	22.5
0.15	26	20	11	22.5
0.18	26	22	12.5	22.5
0.22	26	24	14	22.5
0.1	31	18	9	27.5
0.12	31	18	9	27.5
0.15	31	20	10	27.5
0.18	31	22	13	27.5
0.22	31	22	13	27.5
0.27	31	23.5	14	27.5
0.33	31	24.5	15	27.5

R.V.	1000VDC/600VAC			
Size Cap.	W	H	T	P
0.39	31	26	18	27.5
0.47	31	28	18	27.5

R.V.	1600VDC/650VAC			
Size Cap.	W	H	T	P
0.001	18	11	5	15
0.0012	18	11	5	15
0.0015	18	11	5	15
0.0018	18	11	5	15
0.0022	18	11	5	15
0.0027	18	11	5	15
0.0033	18	11	5	15
0.0039	18	11	5	15
0.0047	18	11	5	15
0.0056	18	11	5	15
0.0068	18	11	5	15
0.0082	18	11	5	15
0.01	18	12	6	15
0.012	18	12	6	15
0.015	18	13	7	15
0.018	18	13	7	15
0.022	18	13.5	7.5	15
0.027	18	14.5	8.5	15
0.033	18	17	8	15
0.022	26	15	6	22.5
0.027	26	15	6	22.5
0.033	26	15	6	22.5
0.039	26	16.5	7	22.5
0.047	26	16.5	7	22.5
0.056	26	17	8	22.5
0.068	26	18	9	22.5
0.082	26	19	10	22.5
0.1	26	20	11	22.5
0.047	31	18	9	27.5
0.056	31	18	9	27.5
0.068	31	18	9	27.5
0.082	31	18	9	27.5
0.1	31	20	10	27.5
0.12	31	20	11	27.5
0.15	31	22	13	27.5
0.18	31	23.5	14	27.5
0.22	31	24.5	15	27.5
0.27	31	26	18	27.5
0.33	31	33	18	27.5

R.V.	2000VDC/700VAC			
Size Cap.	W	H	T	P
0.001	18	11	5	15
0.0012	18	11	5	15
0.0015	18	11	5	15
0.0018	18	11	5	15
0.0022	18	11	5	15
0.0027	18	11	5	15
0.0033	18	11	5	15
0.0039	18	11	5	15
0.0047	18	11	5	15
0.0056	18	12	6	15
0.0068	18	12	6	15
0.0082	18	13	7	15
0.01	18	13	7	15
0.012	18	14	8	15
0.015	18	14.5	8.5	15
0.018	18	18	9	15
0.022	18	18	10	15
0.01	26	15	6	22.5
0.012	26	15	6	22.5
0.015	26	15	6	22.5
0.018	26	15	6	22.5
0.022	26	16	6	22.5
0.027	26	16.5	7	22.5
0.033	26	17	8	22.5
0.039	26	18	9	22.5
0.047	26	18.5	10	22.5
0.056	26	20	11	22.5
0.068	26	21.5	12	22.5
0.082	26	24	14	22.5
0.1	26	25	14	22.5
0.033	31	18	9	27.5
0.039	31	18	9	27.5
0.047	31	20	10	27.5
0.056	31	20	11	27.5
0.068	31	22	13	27.5
0.082	31	23.5	14	27.5
0.1	31	24.5	15	27.5
0.12	31	25.5	16	27.5
0.15	31	28	18	27.5
0.18	31	30.5	20	27.5