

# MSR

## Radial leaded metallized polyester film capacitors



### Features

- Self Healing
- Low ESR
- Small size
- Low cost

### Applications

- General Purpose
- Bypass
- Coupling
- Blocking

<b>Operating Temperature Range</b>	<b>-55°C to +125°C</b>					
<b>Capacitance Tolerance</b>	±10% at 1 kHz, 25°C ±5% optional					
<b>Peak, AC voltage (50/60 Hz)</b>	<b>WVDC</b>	<b>100</b>	<b>250</b>	<b>400</b>	<b>630</b>	<b>1000</b>
	<b>VAC</b>	63	160	200	220	250
For T>+85°C , The voltage must be decreased by 1.25% per °C						
<b>Dissipation Factor (MAX) 25°C</b>	<b>Frequency (kHz)</b>	<b>Dissipation Factor</b>				
	1	1.0%				
	10	1.5%				
<b>Insulation Resistance @25°C (&lt;70% RH)for 1 minute at 100VDC applied</b>	<b>WVDC</b>	<b>Capacitance</b>	<b>Insulation Resistance</b>			
	≤100	≤0.33μF	15000 MΩ			
	>100	>0.33μF	30000 MΩxμF			
	≤100	≤0.33μF	5000 MΩxμF			
	>100	>0.33μF	10000 MΩxμF			
<b>Load Life</b>	<b>2000 Hours, +85C with 125% of rated voltage</b>					
	<b>Capacitance Change</b>	≤5% of initially measured value				
	<b>Dissipation Factor</b>	≤0.005 at 1kHz and 25°C				
	<b>Insulation Resistance</b>	≥50% of maximum specified value				
<b>Damp Heat test</b>	<b>1000 Hours, 93%RH(+/-2%), +40°C and no voltage applied</b>					
	<b>Capacitance Change</b>	≤5% of initially measured value				
	<b>Dissipation Factor</b>	≤0.005 at 1kHz and 25°C				
	<b>Insulation Resistance</b>	≥50% of maximum specified value				
<b>Self Inductance</b>	<1 nano-Henry per mm of body length and lead length					
<b>Capacitance Drift Factor</b>	<1.0% after 2 years at 40°C					
<b>Capacitance Temperature Coefficient</b>	+400 ppm/°C, ±200ppm/°C					
<b>Dielectric Strength</b>	<b>Terminal to Terminal</b>					
	160% of VDC applied for 2 Seconds and 25°C					
<b>Dielectric</b>	Polyester					
<b>Construction</b>	Metallized film					
<b>Coating</b>	Flame Retardant epoxy resin (UL94V0)					
<b>Leads</b>	Lead free tinned copper leads					

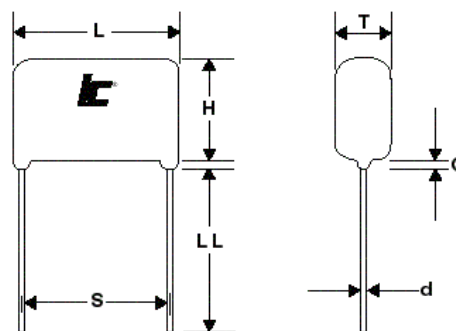
# MSR

Radial Leaded  
metallized polyester  
film Capacitors

Standard part list

Capacitance (μF)	WVDC	IC PART #	dv/dt (V/μs)	Dimensions LxHxT (mm)
0.01	400	103MSR400K	160	10.5x9x5.5
0.01	630	103MSR630K	200	13x10x6
0.01	1000	103MSR102K	80	14x11.5x7
0.015	250	153MSR250K	110	10.5x9.5x5.5
0.015	400	153MSR400K	160	10.5x9.5x5.5
0.015	630	153MSR630K	200	13x10.5x6.5
0.015	1000	153MSR102K	80	14x11.5x8
0.022	250	223MSR250K	110	10.5x9.5x5.5
0.022	400	223MSR400K	160	13x9.5x5.5
0.022	630	223MSR630K	200	13x12.5x7.5
0.022	1000	223MSR102K	40	19x12.5x8.5
0.033	250	333MSR250K	110	10.5x9.5x6
0.033	400	333MSR400K	160	13x10.5x6.5
0.033	630	333MSR630K	90	18.5x12x6.5
0.033	1000	333MSR102K	40	19.5x14x9.5
0.047	100	473MSR100K	35	10.5x9.5x6
0.047	250	473MSR250K	110	12.5x9x5
0.047	400	473MSR400K	160	13x11.5x7
0.047	630	473MSR630K	90	18x12.5x7.5
0.047	1000	473MSR102K	33	27x14x9
0.068	100	683MSR100K	35	10.5x9.5x6
0.068	250	683MSR250K	110	12.5x10x5
0.068	400	683MSR400K	65	17.5x10x5.5
0.068	630	683MSR630K	90	18.5x14x8.5
0.068	1000	683MSR102K	33	27x15x10
0.1	100	104MSR100K	30	12.5x8.5x5.5
0.1	250	104MSR250K	110	13x10x6.5
0.1	400	104MSR400K	65	18.5x12x7
0.1	630	104MSR630K	90	18x15.5x10
0.1	1000	104MSR102K	33	27x16.5x11.5
0.15	100	154MSR100K	30	13x9x5.5
0.15	250	154MSR250K	110	13x13x7

Capacitance (μF)	WVDC	IC PART #	dv/dt (V/μs)	Dimensions LxHxT (mm)
0.15	400	154MSR400K	65	18.5x13.5x8
0.15	630	154MSR630K	35	22.5x16.5x9.5
0.22	100	224MSR100K	30	13x10x6.5
0.22	250	224MSR250K	45	18x11.5x6
0.22	400	224MSR400K	30	22.5x14.5x8
0.22	630	224MSR630K	35	22.5x19x11.5
0.22	1000	224MSR102K	20	32.5x22.5x14.5
0.33	100	334MSR100K	20	17x10x5.5
0.33	250	334MSR250K	45	18x12x7
0.33	400	334MSR400K	30	22.5x15x9
0.33	630	334MSR630K	30	32x19x12
0.33	1000	334MSR102K	20	32.5x25.5x16
0.47	100	474MSR100K	20	18x11x7
0.47	250	474MSR250K	20	22.5x12.5x7.5
0.47	400	474MSR400K	30	23.5x19x10.5
0.47	630	474MSR630K	30	32x22x13.5
0.47	1000	474MSR102K	20	32.5x26.5x18.5
0.68	100	684MSR100K	20	18.5x12.5x7.5
0.68	250	684MSR250K	20	22.5x13.5x8.5
0.68	400	684MSR400K	25	32x19x12
0.68	630	684MSR630K	30	33x24.5x14
1	100	105MSR100K	20	18.5x13.5x8.5
1	250	105MSR250K	20	22.5x15x10
1	400	105MSR400K	25	30.5x21x12.5
1.5	100	155MSR100K	10	22.5x14.5x8
1.5	250	155MSR250K	15	30x17.5x9.5
2.2	100	225MSR100K	10	22.5x16.5x10
2.2	250	225MSR250K	15	30.5x22x12
3.3	100	335MSR100K	10	22.5x20x12
4.7	100	475MSR100K	5	30x20.5x11
6.8	100	685MSR100K	5	32x23.5x14.5
10	100	106MSR100K	5	32x28.5x17.5



L MAX	10.5	12	18.5	26	31
S+1.0	7.5	10	15	22.5	27.5
G MAX	1.5	1.5	1.5	1.5	1.5
d +0.05	0.6	0.6	0.8	0.8	0.8