



## Metallized Polyester Film Capacitors

Radial Leaded, Epoxy Dipped

### FEATURES

Small Size - Self Healing - Low Cost

### APPLICATIONS

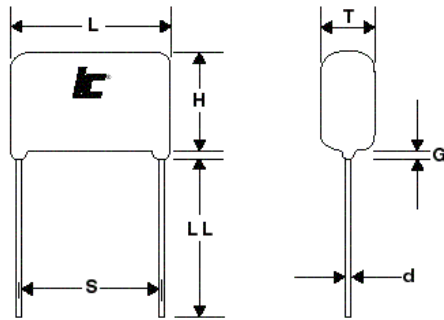
General Purpose - Bypass - Coupling - Blocking

<b>Operating Temperature Range</b>	<b>-55°C to +125°C</b>					
<b>Capacitance Tolerance</b>	$\pm 10\%$ at 1 kHz, 25°C $\pm 5\%$ 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>		
	$\leq 100$	$\leq 0.33\mu\text{F}$		15000 MΩ		
	$> 100$	$> 0.33\mu\text{F}$		30000 MΩxμF		
	$\leq 100$	$\leq 0.33\mu\text{F}$		5000 MΩxμF		
	$> 100$	$> 0.33\mu\text{F}$		10000 MΩxμF		
<b>Load Life</b>	<b>2000 Hours, +85C with 125% of rated voltage</b>					
	<b>Capacitance Change</b>		$\leq 5\%$ of initially measured value			
	<b>Dissipation Factor</b>		$\leq 0.005$ at 1kHz and 25°C			
	<b>Insulation Resistance</b>		$\geq 50\%$ 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>		$\leq 5\%$ of initially measured value			
	<b>Dissipation Factor</b>		$\leq 0.005$ at 1kHz and 25°C			
	<b>Insulation Resistance</b>		$\geq 50\%$ 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, $\pm 200$ ppm/°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

## Metallized Polyester Film Capacitors

Radial Leaded, Epoxy Dipped



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

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# MSR

Metallized Polyester Epoxy  
Dipped Radial lead

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.01	400	<a href="#">103MSR400K</a>	160	10.5x9x5.5	7.5	0.6
0.01	630	<a href="#">103MSR630K</a>	200	13x10x6	10	0.6
0.01	1000	<a href="#">103MSR102K</a>	80	14x11.5x7	10	0.6
0.015	250	<a href="#">153MSR250K</a>	110	10.5x9.5x5.5	7.5	0.6
0.015	400	<a href="#">153MSR400K</a>	160	10.5x9.5x5.5	7.5	0.6
0.015	630	<a href="#">153MSR630K</a>	200	13x10.5x6.5	10	0.6
0.015	1000	<a href="#">153MSR102K</a>	80	14x11.5x8	10	0.6
0.022	250	<a href="#">223MSR250K</a>	110	10.5x9.5x5.5	7.5	0.6
0.022	400	<a href="#">223MSR400K</a>	160	13x9.5x6	10	0.6
0.022	630	<a href="#">223MSR630K</a>	200	13x12.5x7.5	10	0.6
0.022	1000	<a href="#">223MSR102K</a>	40	19x12.5x8.5	15	0.8
0.033	250	<a href="#">333MSR250K</a>	110	10.5x9.5x6	7.5	0.6
0.033	400	<a href="#">333MSR400K</a>	160	13x10.5x6.5	10	0.6
0.033	630	<a href="#">333MSR630K</a>	90	18.5x12x6.5	15	0.8
0.033	1000	<a href="#">333MSR102K</a>	40	19.5x14x9.5	15	0.8
0.047	100	<a href="#">473MSR100K</a>	35	10.5x9.5x6	7.5	0.6
0.047	250	<a href="#">473MSR250K</a>	110	12.5x9x5	10	0.6
0.047	400	<a href="#">473MSR400K</a>	160	13x11x7	10	0.6
0.047	630	<a href="#">473MSR630K</a>	90	18x12.5x7.5	15	0.6
0.047	1000	<a href="#">473MSR102K</a>	33	27x14x9	22.5	0.8
0.068	100	<a href="#">683MSR100K</a>	35	10.5x9.5x6	7.5	0.6
0.068	250	<a href="#">683MSR250K</a>	110	12.5x10x5	10	0.6
0.068	400	<a href="#">683MSR400K</a>	65	17.5x10x5.5	15	0.8
0.068	630	<a href="#">683MSR630K</a>	90	18.5x14x8.5	15	0.8
0.068	1000	<a href="#">683MSR102K</a>	33	27x15x10	22.5	0.8
0.1	100	<a href="#">104MSR100K</a>	30	12.5x8.5x5.5	10	0.6
0.1	250	<a href="#">104MSR250K</a>	110	13x10x6.5	10	0.6
0.1	400	<a href="#">104MSR400K</a>	65	18.5x12x7	15	0.8
0.1	630	<a href="#">104MSR630K</a>	90	18.5x15.5x10	15	0.8
0.1	1000	<a href="#">104MSR102K</a>	33	27x16.5x11.5	22.5	0.8
0.15	100	<a href="#">154MSR100K</a>	30	13x9x5.5	10	0.6
0.15	250	<a href="#">154MSR250K</a>	110	13x13x7	10	0.6

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.15	400	<a href="#">154MSR400K</a>	65	18.5x13.5x8	15	0.8
0.15	630	<a href="#">154MSR630K</a>	35	22.5x16.5x9.5	20	0.8
0.22	100	<a href="#">224MSR100K</a>	30	13x10x6.5	10	0.6
0.22	250	<a href="#">224MSR250K</a>	45	18x11.5x6	15	0.8
0.22	400	<a href="#">224MSR400K</a>	30	22.5x14.5x8	20	0.8
0.22	630	<a href="#">224MSR630K</a>	35	22.5x19x11.5	20	0.8
0.22	1000	<a href="#">224MSR102K</a>	20	32.5x22.5x14.5	27.5	0.8
0.33	100	<a href="#">334MSR100K</a>	20	17.5x10x5.5	15	0.8
0.33	250	<a href="#">334MSR250K</a>	45	18.5x12x7	15	0.8
0.33	400	<a href="#">334MSR400K</a>	30	22.5x15x9	20	0.8
0.33	630	<a href="#">334MSR630K</a>	30	32x19x12	27.5	0.8
0.33	1000	<a href="#">334MSR102K</a>	20	32.5x25.5x16	27.5	0.8
0.47	100	<a href="#">474MSR100K</a>	20	18x11x7	15	0.6
0.47	250	<a href="#">474MSR250K</a>	20	22.5x12.5x7.5	20	0.8
0.47	400	<a href="#">474MSR400K</a>	30	23.5x19x10.5	20	0.8
0.47	630	<a href="#">474MSR630K</a>	30	32x22x13.5	27.5	0.8
0.47	1000	<a href="#">474MSR102K</a>	20	32.5x26.5x18.5	27.5	0.8
0.68	100	<a href="#">684MSR100K</a>	20	18.5x12.5x7.5	15	0.6
0.68	250	<a href="#">684MSR250K</a>	20	22.5x13.5x8.5	20	0.8
0.68	400	<a href="#">684MSR400K</a>	25	32x19x12	27.5	0.8
0.68	630	<a href="#">684MSR630K</a>	30	33x24.5x14	27.5	0.8
1	100	<a href="#">105MSR100K</a>	20	18.5x13.5x8.5	15	0.8
1	250	<a href="#">105MSR250K</a>	20	22.5x15x10	20	0.8
1	400	<a href="#">105MSR400K</a>	25	30.5x21x12.5	27.5	0.8
1.5	100	<a href="#">155MSR100K</a>	10	22.5x14.5x8	20	0.8
1.5	250	<a href="#">155MSR250K</a>	15	30x17.5x9.5	27.5	0.8
2.2	100	<a href="#">225MSR100K</a>	10	22.5x16.5x10	20	0.8
2.2	250	<a href="#">225MSR250K</a>	15	30.5x22x12	27.5	0.8
3.3	100	<a href="#">335MSR100K</a>	10	22.5x20x12	20	0.8
4.7	100	<a href="#">475MSR100K</a>	5	30x20.5x11	27.5	0.8
6.8	100	<a href="#">685MSR100K</a>	5	32x23.5x14.5	27.5	0.8
10	100	<a href="#">106MSR100K</a>	5	32x28.5x17.5	27.5	0.8