

MSR

Epoxy Dipped Radial Lead Metallized Polyester Film Capacitors



- Bypass
- Coupling

- Filtering
- Blocking

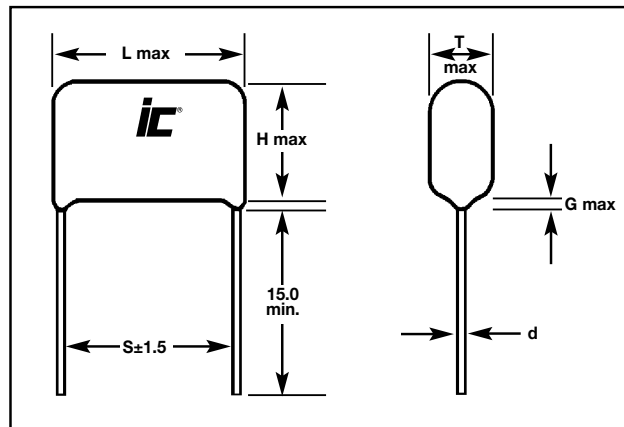
Operating Temperature Range		-55°C to +125°C				
Capacitance Tolerance		±10% at 1kHz, 20°C				
Rated Voltage	VDC	100	250	400	630	1000
	VAC	63	150	200	220	250
For T > +85°C the applied voltage must be decreased by 1.25% per °C						
Dissipation Factor (max) at 20°C	Freq. (kHz)					
	1	1.0%				
	10	1.5%				
Insulation Resistance @20°C(<70% RH) for 1 minute at 100VDC	WVDC	Capacitance	Insulation Resistance			
	≤100	≤0.33 μF	15,000 MΩ			
	≥100	>0.33 μF	30,000 MΩ			
	≤100	≤0.33 μF	5000 MΩ x μF			
	>100	>0.33 μF	10,000 MΩ x μF			
Load Life Test	2,000 hours at 125% of rated VDC and at 85°C					
	Capacitance Change	≤5% change from initial value.				
	Dissipation Factor	≤0.005 at 1kHz and 25°C				
	Insulation Resistance	≥50% of minimum specification				
Damp Heat Test	1000 hours at +40°C±2°C with 93% ±2% relative humidity					
	Capacitance Change	≤5% change from initial value.				
	Dissipation Factor	≤0.005 at 1kHz and 25°C				
	Insulation Resistance	≥50% of minimum specification				
Self-inductance	≤1 nH/mm along the capacitor pitch and lead wire length.					
Capacitance Drift Factor	≤1.0% up to 40°C after 2 years					
Temperature Coefficient	+400 ppm/°C, ± 200ppm/°C					
Dielectric	Polyester					
Electrodes	Vacuum deposited metal layers					
Construction	Extended metallized carrier film					
Leads	Tinned copper wire					
Coating	Flame retardant epoxy sealed resin (UL 94V-0)					

PHYSICAL DIMENSIONS

WVDC (VAC) μF	100 (63)	250 (160)	400 (200)	630 (220)	1000 (250)
0.01			10.5x9x5.5	13x10x6	14x11.5x7
0.015		10.5x9.5x6	10.5x9.5x6	13x10.5x6.5	14x11.5x8
0.022		10.5x9.5x6	13x9.5x6	13x12.5x7.5	19x12.5x8.5
0.033		10.5x9.5x6	13x10.5x6.5	18.5x12x6.5	19.5x14x9.5
0.047	10.5x9.5x6	12.5x9x5	13x12x7	18.5x12.5x7.5	27x14x9
0.068	10.5x9.5x6	12.5x10x5	17.5x10x5.5	18.5x14x8.5	27x15x10
0.10	12.5x8.5x5.5	13x10x6.5	18.5x12.5x7	18.0x15.5x10	27x16.5x11.5
0.15	13x9x5.5	13x13x7	18.5x13.5x8	22.5x16.5x9.5	
0.22	13x10x6.5	18.5x11.5x6.5	22.5x14.5x8	22.5x19x11.5	32.5x22.5x14.5
0.33	17.5x10x5.5	18.5x12x7	22.5x15x9	32x19x12	32.5x25.5x16
0.47	18.5x11x6	22.5x12.5x7.5	22.5x18.5x11.5	32x22x13.5	32.5x26.5x18.5
0.68	18.5x12.5x7.5	22.5x13.5x8.5	32x19x12	33x24.5x14	
1.0	18.5x13.5x8.5	22.5x15x10	32x21.5x13.5		
1.5	22.5x14.5x8	30x17.5x9.5			
2.2	22.5x16.5x10	32x19x10.5			
3.3	22.5x20x12				
4.7	30x20.5x11				
6.8	32x23.5x14.5				
10.0	32x29x18				

Convert to inches, divide by 25.4

LxHxT (mm)



L	≤10	10 < L ≤ 14	14 < L ≤ 17.5	17.5 < L ≤ 19	19 < L ≤ 22.5	22.5 < L < 30	L ≥ 30
S	7.5	10	15	15	20	22.5	27.5
d	0.6	0.6	0.6	0.8	0.8	0.8	0.8
G	1.0	1.0	1.0	1.0	2.0	2.0	2.0

STANDARD PART LISTING

Capacitance (μ F)	WVDC	IC [®] PART NUMBER	dv/dt (v/ μ sec.)	Dimensions L x H x T (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	10.5x9.5x6
0.015	400	153MSR400K	160	10.5x9.5x6
0.015	630	153MSR630K	200	13x10.5x6.5
0.015	1000	153MSR102K	80	14x11.5x8
0.022	250	223MSR250K	110	10.5x9.5x6
0.022	400	223MSR400K	160	13x9.5x6
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	13x12x7
0.047	630	473MSR630K	90	18.5x12.5x7.5
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	18.5x12.5x7
0.1	630	104MSR630K	90	18x14.5x10
0.1	1000	104MSR102K	33	27x16.5x11.5
0.15	100	154MSR100K	30	13x9x5.5
0.15	250	154MSR250K	110	13x13x7

NOTE: WVDC: = MAXIMUM RATED WORKING VOLTAGE @ +85°C.

Capacitance (μ F)	WVDC	IC [®] PART NUMBER	dv/dt (v/ μ sec.)	Dimensions L x H x T (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	18.5x11.5x6.5
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	17.5x10x5.5
0.33	250	334MSR250K	45	18.5x12x7
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	18.5x11x6
0.47	250	474MSR250K	20	22.5x12.5x7.5
0.47	400	474MSR400K	30	22.5x18.5x11.5
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	32x21.5x13.5
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	32x19x10.5
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	32x29x18