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 mimimum 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-O)					

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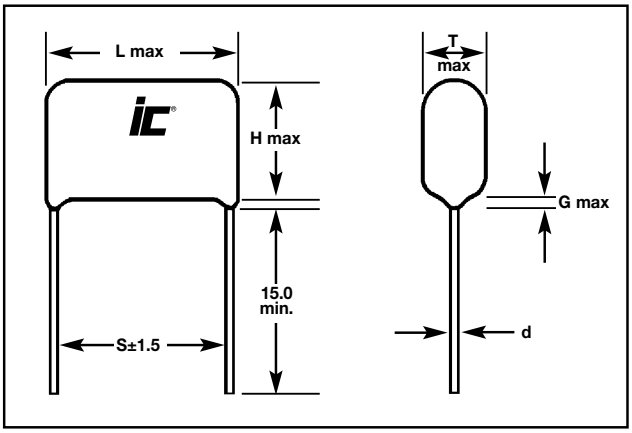
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PHYSICAL DIMENSIONS

WVDC (VAC) / µF	100 (63)	250 (160)	400 (200)	630 (220)	1000 (250)
0.01	→	→	10x9x5	12.5x10x5	14x11.5x8
0.015	→	10x9x5	10x9.5x5.5	12.5x10.5x6	14x11.5x8
0.022	→	10x9x5	12.5x9x5	12.5x12x7	19x12.5x8.5
0.033	→	10x9.5x5.5	12.5x10.5x5.5	17.5x11.5x6.5	19.5x14x9.5
0.047	10x8.5x5	12.5x9x5	12.5x11x6.5	17.5x12.5x7.5	27x14x9
0.068	10x8x4.5	12.5x10x5	17.5x10x5.5	17.5x14x8	27x15x10
0.10	12.5x8.5x5.5	12.5x11x6	17.5x11.5x6.5	17.5x15.5x10	27x16.5x11.5
0.15	12.5x9x5	13x13x7	17.5x12.5x7.5	22.5x16.5x9	
0.22	12.5x10x5.5	17.5x11x6.5	22.5x14.5x7.5	22.5x19x11	32.5x22.5x14.5
0.33	17.5x10x5.5	17.5x12.5x7	22.5x16x9	30x18.5x11	32.5x25.5x16
0.47	17.5x11x6.5	22.5x12.5x7.5	22.5x19.5x10	30x22x12.5	32.5x26.5x18.5
0.68	17.5x12.5x7.5	22.5x14.5x8.5	30x18x10	33x24.5x14	
1.0	18x14x8	22.5x17x9.5	30x20.5x12		
1.5	22.5x14.5x8.5	30x18x9.5			
2.2	22.5x16.5x10.5	30x21.5x11.5			
3.3	22.5x21x11.5				
4.7	30x20.5x11				
6.8	30x22.5x12.5				
10.0	32x28x17				

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

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STANDARD PART LISTING

Capacitance (µF)	WVDC	IC® PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
0.01	400	**103MSR400K**	160	10x9x5
0.01	630	**103MSR630K**	200	12.5x10x5
0.01	1000	**103MSR102K**	80	14x11.5x7
0.015	250	**153MSR250K**	110	10x9x5
0.015	400	**153MSR400K**	160	10x9.5x5.5
0.015	630	**153MSR630K**	200	12.5x10.5x6
0.015	1000	**153MSR102K**	80	14x11.5x8
0.022	250	**223MSR250K**	110	10x9x5
0.022	400	**223MSR400K**	160	12.5x9x5
0.022	630	**223MSR630K**	200	12.5x12x7
0.022	1000	**223MSR102K**	40	19x12.5x8.5
0.033	250	**333MSR250K**	110	10x9.5x5.5
0.033	400	**333MSR400K**	160	12.5x10.5x5.5
0.033	630	**333MSR630K**	90	17.5x11.5x6.5
0.033	1000	**333MSR102K**	40	19.5x14x9.5
0.047	100	**473MSR100K**	35	10x8.5x5
0.047	250	**473MSR250K**	110	12.5x9x5
0.047	400	**473MSR400K**	160	12.5x11x6.5
0.047	630	**473MSR630K**	90	17.5x12.5x7.5
0.047	1000	**473MSR102K**	33	27x14x9
0.068	100	**683MSR100K**	35	10x8x4.5
0.068	250	**683MSR250K**	110	12.5x10x5
0.068	400	**683MSR400K**	160	17.5x10x5.5
0.068	630	**683MSR630K**	90	17.5x14x8
0.068	1000	**683MSR102K**	33	27x15x10
0.10	100	**104MSR100K**	30	12.5x8.5x5.5
0.10	250	**104MSR250K**	110	12.5x11x6
0.10	400	**104MSR400K**	65	17.5x11.5x6.5
0.10	630	**104MSR630K**	90	17.5x15.5x10
0.10	1000	**104MSR102K**	33	27x16.5x11.5
0.15	100	**154MSR100K**	30	12.5x9x5
0.15	250	**154MSR250K**	110	13x13x7
0.15	400	**154MSR400K**	65	17.5x12.5x7.5
0.15	630	**154MSR630K**	35	22.5x16.5x9
0.22	100	**224MSR100K**	30	12.5x10x5.5
0.22	250	**224MSR250K**	45	17.5x11x6.5
0.22	400	**224MSR400K**	30	22.5x14.5x7.5
0.22	630	**224MSR630K**	35	22.5x19x11
0.22	1000	**224MSR102K**	20	32.5x22.5x14.5
0.33	100	**334MSR100K**	20	17.5x10x5.5
0.33	250	**334MSR250K**	45	17.5x12.5x7
0.33	400	**334MSR400K**	30	22.5x16x9
0.33	630	**334MSR630K**	30	30x18.5x11
0.33	1000	**334MSR102K**	20	32.5x25.5x16
0.47	100	**474MSR100K**	20	17.5x11x6.5
0.47	250	**474MSR250K**	20	22.5x12.5x7.5
0.47	400	**474MSR400K**	30	22.5x19.5x10
0.47	630	**474MSR630K**	30	30x22x12.5
0.47	1000	**474MSR102K**	20	32.5x26.5x18.5
0.68	100	**684MSR100K**	20	17.5x12.5x7.5
0.68	250	**684MSR250K**	20	22.5x14.5x8.5
0.68	400	**684MSR400K**	25	30x18x10
0.68	630	**684MSR630K**	30	33x24.5x14
1.0	100	**105MSR100K**	20	18x14x8
1.0	250	**105MSR250K**	20	22.5x17x9.5
1.0	400	**105MSR400K**	25	30x20.5x12
1.5	100	**155MSR100K**	10	22.5x14.5x8.5
1.5	250	**155MSR250K**	15	30x18x9.5
2.2	100	**225MSR100K**	10	22.5x16.5x10.5
2.2	250	**225MSR250K**	15	30x21.5x11.5
3.3	100	**335MSR100K**	10	22.5x21x11.5
4.7	100	**475MSR100K**	5	30x20.5x11
6.8	100	**685MSR100K**	5	30x22.5x12.5
10.0	100	**106MSR100K**	5	32x28x17

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