



FEATURES

Small Size - Low ESR - General Purpose

APPLICATIONS

General Purpose - Bypass - Coupling - Blocking

Operating Temperature Range	-40°C to +105°C								
Capacitance Tolerance	±10% at 1 kHz, 25°C +5% optional								
Peak, AC voltage (50/60 Hz)	WVDC	50	63	100	250	400	630	1000	1500
	VAC	30	40	63	160	200	220	250	300
For T>+85°C , The voltage must be decreased by 1.25% per °C									
Dissipation Factor (MAX) 25°C	Frequency (kHz)		C<0.1uF		0.1uF<C<1.0uF		C>1.0uF		
	1		0.80%		1.00%		1.00%		
	10		1.50%		1.50%		-		
	100		2.50%		-		-		
Insulation Resistance @25°C (<70% RH)for 1 minute at 100VDC applied	WVDC		Capacitance		Insulation Resistance				
	<100WVDC		<0.33µF		15000 MΩ				
	>100WVDC		<0.33µF		30000 MΩxµF				
	<100WVDC		>0.33µF		15000 MΩxµF				
	>100WVDC		>0.33µF		10000 MΩxµF				
Load Life	2000 Hours, +85C with 125% of rated voltage								
	Capacitance Change			≤5% of initially measured value					
	Dissipation Factor			≤0.005 at 1kHz and 25°C for C≤1uF ≤0.005 at 1kHz and 25°C For C>1uF					
	Insulation Resistance			≥50% of maximum specified value					
Damp Heat test	56 days at40°C with 93%RH(+/-2%), +40°C and no voltage applied								
	Capacitance Change			≤5% of initially measured value					
	Dissipation Factor			<0.005 at 1kHz and 25°C					
	Insulation Resistance			≥50% of maximum specified value					
Self Inductance	<1 nano-Henry per mm of body length and lead length								
Capacitance Drift Factor	<1.0% after 2 years at 40°C								
Capacitance Temperature Coefficient	+400 ppm/°C, ±200ppm/°C								
Dielectric Strength	Terminal to Terminal								
	160% of VDC applied for 2 Seconds and 25°C								
Dielectric	Polyester								
Construction	Metallized film Internal series connected (>1000WVDC)								
Coating	Flame Retardant Polyester tape wrap (UL 510) with epoxy resin end fills(UL94V0)								
Leads	Lead free tinned copper leads								



Lead Diameter	
D	d
≤9	0.6
9<D≤20	0.8
>20	1.0

MWR

Metallized Polyester Axial Lead

WVDC	Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims DxL (mm)	d (MM)
50	0.22	224MWR050K	9	6x11.5	0.6
50	0.33	334MWR050K	9	6x11.5	0.6
50	0.47	474MWR050K	9	6x11.5	0.6
50	0.68	684MWR050K	9	6x11.5	0.6
50	1	105MWR050K	9	7.5x11.5	0.6
50	1.5	155MWR050K	9	8x14.5	0.6
50	2.2	225MWR050K	9	9x14.5	0.8
50	3.3	335MWR050K	6	10x20.5	0.8
50	4.7	475MWR050K	6	10.5x20.5	0.8
50	6.8	685MWR050K	6	11.5x20.5	0.8
50	10	106MWR050K	6	13.5x20.5	0.8
63	0.15	154MWR063K	11	5.5x14	0.6
63	0.68	684MWR063K	7	6.5x19	0.6
63	1	105MWR063K	7	8x20.5	0.6
63	1.5	155MWR063K	7	9.5x20.5	0.8
63	2.2	225MWR063K	5	10.5x29	0.8
63	3.3	335MWR063K	5	11x29	0.8
63	4.7	475MWR063K	5	12.5x29	0.8
63	10	106MWR063K	4	14x34	0.8
100	0.068	683MWR100K	6	5.5x11.5	0.6
100	0.1	104MWR100K	6	6x11.5	0.6
100	0.15	154MWR100K	6	6x14	0.6
100	0.22	224MWR100K	6	6.5x14	0.6
100	0.33	334MWR100K	6	7.5x14	0.6
100	0.47	474MWR100K	6	7x15.5	0.6
100	0.68	684MWR100K	3	8x19	0.6
100	1	105MWR100K	3	9.5x19	0.8
100	1.5	155MWR100K	2	9x27	0.8
100	2.2	225MWR100K	2	12x29	0.8
100	3.3	335MWR100K	2	13x29	0.8
100	4.7	475MWR100K	4	12.5x34	0.8
100	6.8	685MWR100K	2	17x34	0.8
100	10	106MWR100K	2	18x34	0.8
100	15	156MWR100K	2	21x34	1
100	22	226MWR100K	2	22x46	1
250	0.022	223MWR250K	10	5.5x11.5	0.6
250	0.033	333MWR250K	10	6x11.5	0.6
250	0.039	393MWR250K	10	6x11.5	0.6
250	0.047	473MWR250K	10	5.5x14	0.6
250	0.068	683MWR250K	10	6.5x14.5	0.6
250	0.1	104MWR250K	10	6x14	0.6
250	0.15	154MWR250K	10	7x14	0.6
250	0.22	224MWR250K	7	7x19	0.6
250	0.33	334MWR250K	7	8x19	0.6
250	0.47	474MWR250K	7	9.5x19	0.8
250	0.68	684MWR250K	4	9.5x27	0.8
250	1	105MWR250K	4	10.5x27	0.8
250	1.5	155MWR250K	4	12.5x29	0.8
250	2.2	225MWR250K	2	13.5x34	0.8
250	3.3	335MWR250K	2	16x34	0.8
250	4.7	475MWR250K	2	19.5x34	0.8
250	6.8	685MWR250K	5	23x34	1
250	10	106MWR250K	2	24.5x46.5	1
400	0.01	103MWR400K	14	5x11.5	0.6
400	0.015	153MWR400K	14	5.5x14.5	0.6
400	0.022	223MWR400K	14	5.5x14	0.6
400	0.033	333MWR400K	6	6x14	0.6
400	0.039	393MWR400K	14	7x15.5	0.6

WVDC	Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims DxL (mm)	d (MM)
400	0.047	473MWR400K	6	7x14	0.6
400	0.068	683MWR400K	10	7.5x20.5	0.6
400	0.1	104MWR400K	10	7.5x19	0.6
400	0.15	154MWR400K	10	8.5x19	0.6
400	0.22	224MWR400K	6	8.5x27	0.8
400	0.33	334MWR400K	6	10x27	0.8
400	0.47	474MWR400K	6	12.5x27	0.8
400	0.68	684MWR400K	4	12.5x34	0.8
400	1	105MWR400K	4	14.5x34	0.8
400	1.5	155MWR400K	4	17.5x34	0.8
400	2.2	225MWR400K	2	20.5x34	0.8
400	3.3	335MWR400K	2	22.5x47	1
630	0.001	102MWR630K	60	5.5x11.5	0.6
630	0.0015	152MWR630K	60	5.5x11.5	0.6
630	0.0022	222MWR630K	60	5.5x11.5	0.6
630	0.0033	332MWR630K	60	5.5x11.5	0.6
630	0.0039	392MWR630K	60	5.5x11.5	0.6
630	0.0047	472MWR630K	60	5.5x11.5	0.6
630	0.0068	682MWR630K	60	5.5x11.5	0.6
630	0.01	103MWR630K	20	6x14	0.6
630	0.015	153MWR630K	20	6.5x14.5	0.6
630	0.022	223MWR630K	20	8x14	0.6
630	0.033	333MWR630K	15	8x20.5	0.6
630	0.039	393MWR630K	15	8x20.5	0.6
630	0.047	473MWR630K	15	7.5x19	0.6
630	0.068	683MWR630K	15	9x20.5	0.8
630	0.1	104MWR630K	10	9x27	0.8
630	0.15	154MWR630K	10	10.5x29	0.8
630	0.22	224MWR630K	10	12.5x27	0.8
630	0.33	334MWR630K	6	13.5x34	0.8
630	0.47	474MWR630K	6	15x34	0.8
630	0.68	684MWR630K	6	18.5x34	0.8
630	1	105MWR630K	6	22x34	1
630	1.5	155MWR630K	6	26.5x34	1
1000	0.01	103MWR102K	80	7x14.5	0.6
1000	0.015	153MWR102K	80	8x14.5	0.6
1000	0.022	223MWR102K	40	9.5x20.5	0.8
1000	0.033	333MWR102K	40	10.5x20.5	0.8
1000	0.047	473MWR102K	33	11x29	0.8
1000	0.068	683MWR102K	33	12.5x29	0.8
1000	0.1	104MWR102K	33	12x29	0.8
1000	0.15	154MWR102K	20	13x34	0.8
1000	0.22	224MWR102K	20	14.5x34	0.8
1000	0.33	334MWR102K	20	17x34	0.8
1000	0.47	474MWR102K	20	19.5x34	0.8
1500	0.001	102MWR152KB	90	5.5x14.5	0.6
1500	0.0015	152MWR152KB	90	5.5x14.5	0.6
1500	0.0022	222MWR152KB	90	6x14.5	0.6
1500	0.0033	332MWR152KB	90	6.5x14.5	0.6
1500	0.0047	472MWR152KB	90	7x14.5	0.6
1500	0.0068	682MWR152KB	90	8x14.5	0.6
1500	0.01	103MWR152KB	90	8.5x14.5	0.8
1500	0.015	153MWR152KD	50	8.5x20.5	0.8
1500	0.022	223MWR152KD	50	9.5x20.5	0.8
1500	0.033	333MWR152KD	50	11x20.5	0.8
1500	0.047	473MWR152KG	40	11x29	0.8
1500	0.068	683MWR152KG	40	12.5x29	0.8
1500	0.1	104MWR152KJ	25	13x34	0.8

MWR

Metallized Polyester Axial Lead

WVDC	Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims DxL (mm)	d (MM)
1500	0.15	154MWR152KJ	25	15x34	0.8
1500	0.22	224MWR152KJ	25	17.5x34	0.8
1500	0.33	334MWR152KJ	25	20.5x34	1
1500	0.47	474MWR152KJ	25	24x34	1

WVDC	Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims DxL (mm)	d (MM)
1500	0.68	684MWR152KN	25	24.5x46.5	1
1500	1	105MWR152KN	25	28.5x46.5	1
1500	1.5	155MWR152KN	25	34x46.5	1