Type MMWA, Polyester Film Capacitors

Metallized Axial Leads

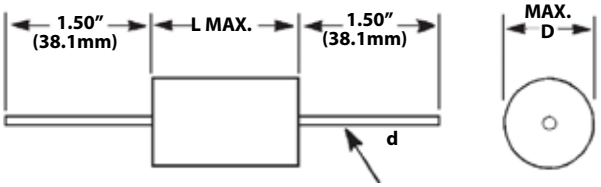
High Capacitance, High Voltage

Type MMWA axial-leaded, metallized polyester film capacitors incorporate compact, non-inductive extended windings with epoxy end seals to offer excellent moisture resistance and capacitance stability over the operating temperature range. Metallized polyester provides self-healing characteristics that help prevent permanent shorting due to high voltage transients.

Specifications

Voltage Range: 50-1,000 Vdc
Capacitance Range: .01-10 µF
Capacitance Tolerance: ±10% (K) standard
±5% (J) optional
Operating Temperature Range: -55°C to 125°C*
*Full-rated voltage at 85°C–Derate linearly to 50%-rated voltage at 125°C

Dielectric Strength: 200% (1 minute)
Dissipation Factor: .75% Max. (25°C, 1 kHz)
Insulation Resistance: 10,000 MΩ x µF
30,000 MΩ Min.
Life Test: 1000 Hours at 85°C at 125% Rated Voltage



TINNED COPPER-CLAD STEEL LEADS

NOTE: Other capacitance values, sizes and performance specifications are available. Contact us.

RoHS Compliant

Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

Ratings and Dimensions — Normally Stocked

Cap. (µF)	Catalog Part Number	D Inches	D (mm)	L Inches	L (mm)	d Inches	d (mm)	dV/dt V/µs
		50 Vd						
0.100	MMWA05P1K-F	0.220	(5.6)	0.562	(14.3)	0.020	(0.5)	36
0.150	MMWA05P15K-F	0.210	(5.3)	0.687	(17.4)	0.020	(0.5)	20
0.220	MMWA05P22K-F	0.240	(6.1)	0.687	(17.4)	0.020	(0.5)	20
0.330	MMWA05P33K-F	0.280	(7.1)	0.687	(17.4)	0.024	(0.6)	20
0.470	MMWA05P47K-F	0.320	(8.1)	0.687	(17.4)	0.024	(0.6)	20
0.680	MMWA05P68K-F	0.290	(7.4)	1.000	(25.4)	0.024	(0.6)	9
1.000	MMWA05W1K-F	0.335	(8.5)	1.000	(25.4)	0.024	(0.6)	9
1.500	MMWA05W1P5K-F	0.355	(9.0)	1.250	(31.7)	0.024	(0.6)	9
2.000	MMWA05W2K-F	0.400	(10.2)	1.250	(31.7)	0.024	(0.6)	9
3.000	MMWA05W3K-F	0.475	(12.1)	1.250	(31.7)	0.024	(0.6)	9
4.000	MMWA05W4K-F	0.505	(12.8)	1.375	(34.9)	0.024	(0.6)	5
5.000	MMWA05W5K-F	0.525	(13.3)	1.500	(38.1)	0.024	(0.6)	4
6.000	MMWA05W6K-F	0.585	(14.9)	1.500	(38.1)	0.032	(0.8)	4
7.000	MMWA05W7K-F	0.625	(15.9)	1.500	(38.1)	0.032	(0.8)	4
8.000	MMWA05W8K-F	0.669	(17.0)	1.500	(38.1)	0.040	(1.0)	4
9.000	MMWA05W9K-F	0.700	(17.8)	1.500	(38.1)	0.040	(1.0)	4
10.000	MMWA05W10K-F	0.670	(17.0)	1.750	(44.4)	0.040	(1.0)	4

Cap. (µF)	Catalog Part Number	D Inches	D (mm)	L Inches	L (mm)	d Inches	d (mm)	dV/dt V/µs
		100 Vdc						
0.010	MMWA1S1K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	36
0.015	MMWA1S15K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	36
0.022	MMWA1S22K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	36
0.033	MMWA1S33K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	36
0.047	MMWA1S47K-F	0.217	(5.5)	0.562	(14.3)	0.020	(0.5)	36
0.068	MMWA1S68K-F	0.217	(5.5)	0.562	(14.3)	0.020	(0.5)	36
0.100	MMWA1P1K-F	0.236	(6.0)	0.562	(14.3)	0.020	(0.5)	36
0.150	MMWA1P15K-F	0.236	(6.0)	0.687	(17.4)	0.020	(0.5)	20
0.220	MMWA1P22K-F	0.256	(6.5)	0.687	(17.4)	0.020	(0.5)	20
0.330	MMWA1P33K-F	0.295	(7.5)	0.687	(17.4)	0.024	(0.6)	20
0.470	MMWA1P47K-F	0.320	(8.1)	0.687	(17.4)	0.024	(0.6)	20
0.680	MMWA1P68K-F	0.320	(8.1)	1.000	(25.4)	0.024	(0.6)	9
1.000	MMWA1W1K-F	0.374	(9.5)	1.000	(25.4)	0.024	(0.6)	9
1.500	MMWA1W1P5K-F	0.374	(9.5)	1.250	(31.7)	0.024	(0.6)	9
2.000	MMWA1W2K-F	0.400	(10.2)	1.250	(31.7)	0.024	(0.6)	9
3.000	MMWA1W3K-F	0.475	(12.1)	1.250	(31.7)	0.024	(0.6)	9
4.000	MMWA1W4K-F	0.505	(12.8)	1.375	(34.9)	0.032	(0.8)	5

Cap.	Catalog	D		L		d		dV/dt
(µF)	Part Number	Inches	(mm)	Inches	(mm)	Inches	(mm)	V/µs
5.000	MMWA1W5K-F	0.525	(13.3)	1.500	(38.1)	0.032	(0.8)	4
6.000	MMWA1W6K-F	0.585	(14.9)	1.500	(38.1)	0.032	(0.8)	4
7.000	MMWA1W7K-F	0.625	(15.9)	1.500	(38.1)	0.032	(0.8)	4
8.000	MMWA1W8K-F	0.669	(17.0)	1.500	(38.1)	0.040	(1.0)	4
9.000	MMWA1W9K-F	0.700	(17.8)	1.500	(38.1)	0.040	(1.0)	4
10.000	MMWA1W10K-F	0.768	(19.5)	1.750	(44.4)	0.040	(1.0)	3
		200/250 Vdc						
0.010	MMWA2S1K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	52
0.015	MMWA2S15K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	52
0.022	MMWA2S22K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	52
0.033	MMWA2S33K-F	0.197	(5.0)	0.562	(14.3)	0.020	(0.5)	52
0.047	MMWA2S47K-F	0.217	(5.5)	0.562	(14.3)	0.020	(0.5)	52
0.068	MMWA2S68K-F	0.200	(5.1)	0.687	(17.4)	0.020	(0.5)	29
0.100	MMWA2P1K-F	0.240	(6.1)	0.687	(17.4)	0.020	(0.5)	29
0.150	MMWA2P15K-F	0.276	(7.0)	0.687	(17.4)	0.024	(0.6)	29
0.220	MMWA2P22K-F	0.310	(7.9)	0.687	(17.4)	0.024	(0.6)	29
0.330	MMWA2P33K-F	0.365	(9.3)	0.728	(18.5)	0.024	(0.6)	29
0.470	MMWA2P47K-F	0.374	(9.5)	1.000	(25.4)	0.024	(0.6)	14
0.680	MMWA2P68K-F	0.365	(9.3)	1.000	(25.4)	0.024	(0.6)	14
1.000	MMWA2W1K-F	0.430	(10.9)	1.062	(27.0)	0.024	(0.6)	14
1.500	MMWA2W1P5K-F	0.465	(11.8)	1.250	(31.7)	0.024	(0.6)	14
2.000	MMWA2W2K-F	0.525	(13.3)	1.250	(31.7)	0.032	(0.8)	14
3.000	MMWA2W3K-F	0.555	(14.1)	1.500	(38.1)	0.032	(0.8)	6
3.500	MMWA2W3P5K-F	0.610	(15.5)	1.500	(38.1)	0.032	(0.8)	6
4.000	MMWA2W4K-F	0.590	(15.0)	1.750	(44.4)	0.032	(0.8)	5
5.000	MMWA2W5K-F	0.669	(17.0)	1.750	(44.4)	0.040	(1.0)	5
6.000	MMWA2W6K-F	0.705	(17.9)	1.750	(44.4)	0.040	(1.0)	5
		400 Vdc						
0.010	MMWA4S1K-F	0.217	(5.5)	0.562	(14.3)	0.020	(0.5)	82
0.015	MMWA4S15K-F	0.217	(5.5)	0.562	(14.3)	0.020	(0.5)	82
0.022	MMWA4S22K-F	0.236	(6.0)	0.562	(14.3)	0.020	(0.5)	82
0.033	MMWA4S33K-F	0.220	(5.6)	0.687	(17.4)	0.020	(0.5)	46
0.047	MMWA4S47K-F	0.276	(7.0)	0.687	(17.4)	0.020	(0.5)	46
0.068	MMWA4S68K-F	0.280	(7.1)	0.687	(17.4)	0.024	(0.6)	46
0.100	MMWA4P1K-F	0.320	(8.1)	0.687	(17.4)	0.024	(0.6)	46
0.150	MMWA4P15K-F	0.290	(7.4)	1.000	(25.4)	0.024	(0.6)	22
0.220	MMWA4P22K-F	0.335	(8.5)	1.000	(25.4)	0.024	(0.6)	22
0.330	MMWA4P33K-F	0.394	(10.0)	1.187	(30.1)	0.024	(0.6)	22
0.470	MMWA4P47K-F	0.433	(11.0)	1.187	(30.1)	0.024	(0.6)	22

Cap.	Catalog	D		L		d		dV/dt
(µF)	Part Number	Inches	(mm)	Inches	(mm)	Inches	(mm)	V/µs
0.680	MMWA4P68K-F	0.433	(11.0)	1.500	(38.1)	0.024	(0.6)	10
1.000	MMWA4W1K-F	0.470	(11.9)	1.750	(44.4)	0.024	(0.6)	8
1.500	MMWA4W1P5K-F	0.570	(14.5)	1.750	(44.4)	0.032	(0.8)	8
2.000	MMWA4W2K-F	0.669	(17.0)	1.750	(44.4)	0.040	(1.0)	8
3.000	MMWA4W3K-F	0.695	(17.6)	2.125	(54.0)	0.040	(1.0)	6
3.500	MMWA4W3P5K-F	0.745	(18.9)	2.125	(54.0)	0.040	(1.0)	6
4.000	MMWA4W4K-F	0.790	(20.1)	2.125	(54.0)	0.040	(1.0)	6
5.000	MMWA4W5K-F	0.870	(22.1)	2.125	(54.0)	0.040	(1.0)	6
		600/630 Vdc						
0.010	MMWA6S1K-F	0.217	(5.5)	0.687	(17.4)	0.020	(0.5)	69
0.015	MMWA6S15K-F	0.236	(6.0)	0.687	(17.4)	0.020	(0.5)	69
0.022	MMWA6S22K-F	0.276	(7.0)	0.750	(19.0)	0.020	(0.5)	69
0.033	MMWA6S33K-F	0.270	(6.9)	0.750	(19.0)	0.024	(0.6)	69
0.047	MMWA6S47K-F	0.305	(7.7)	0.750	(19.0)	0.024	(0.6)	69
0.068	MMWA6S68K-F	0.335	(8.5)	1.000	(25.4)	0.024	(0.6)	32
0.100	MMWA6P1K-F	0.374	(9.5)	1.000	(25.4)	0.024	(0.6)	32
0.150	MMWA6P15K-F	0.413	(10.5)	1.187	(30.1)	0.024	(0.6)	32
0.220	MMWA6P22K-F	0.430	(10.9)	1.250	(31.7)	0.024	(0.6)	32
0.330	MMWA6P33K-F	0.480	(12.2)	1.250	(31.7)	0.024	(0.6)	32
0.470	MMWA6P47K-F	0.470	(11.9)	1.750	(44.4)	0.024	(0.6)	12
0.680	MMWA6P68K-F	0.570	(14.5)	1.750	(44.4)	0.032	(0.8)	12
1.000	MMWA6W1K-F	0.685	(17.4)	1.750	(44.4)	0.040	(1.0)	12
2.000	MMWA6W2K-F	0.805	(20.4)	2.250	(57.1)	0.040	(1.0)	10
3.000	MMWA6W3K-F	0.945	(24.0)	2.250	(57.1)	0.040	(1.0)	10
		1000 Vdc						
0.010	MMWA10S1K-F	0.240	(6.1)	0.875	(22.2)	0.020	(0.5)	220
0.015	MMWA10S15K-F	0.275	(7.0)	0.875	(22.2)	0.024	(0.6)	220
0.022	MMWA10S22K-F	0.320	(8.1)	0.875	(22.2)	0.024	(0.6)	220
0.033	MMWA10S33K-F	0.380	(9.6)	0.875	(22.2)	0.024	(0.6)	220
0.047	MMWA10S47K-F	0.335	(8.5)	1.062	(27.0)	0.024	(0.6)	120
0.068	MMWA10S68K-F	0.410	(10.4)	1.125	(28.6)	0.024	(0.6)	120
0.100	MMWA10P1K-F	0.485	(12.3)	1.125	(28.6)	0.024	(0.6)	120
0.150	MMWA10P15K-F	0.595	(15.1)	1.125	(28.6)	0.032	(0.8)	120
0.220	MMWA10P22K-F	0.605	(15.4)	1.312	(33.3)	0.032	(0.8)	85
0.330	MMWA10P33K-F	0.640	(16.3)	1.500	(38.1)	0.032	(0.8)	50
0.470	MMWA10P47K-F	0.750	(19.0)	1.500	(38.1)	0.040	(1.0)	50
0.680	MMWA10P68K-F	0.810	(20.6)	1.750	(44.4)	0.040	(1.0)	45
1.000	MMWA10W1K-F	0.880	(22.3)	1.937	(49.2)	0.040	(1.0)	40

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