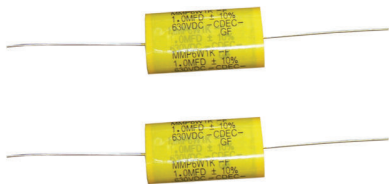


# Type MMP Polyester Film Capacitors

Metallized Oval, Axial Leads

Low Profile Circuit Cards



Type MMP axial-leaded, metallized polyester capacitors are ideal when height is at a premium. Non-inductive winding and self-healing capabilities provide stability and long life.

## Specifications

**Voltage Range:** 100 to 630 Vdc (65 to 250 Vac, 60 Hz)

**Capacitance Range:** .01 to 10  $\mu\text{F}$

**Capacitance Tolerance:**  $\pm 10\%$  (K) standard  
 $\pm 5\%$  (J) optional

**Operating Temperature Range:**  $-55\text{ }^{\circ}\text{C}$  to  $125\text{ }^{\circ}\text{C}^*$

\*Full-rated voltage at  $85\text{ }^{\circ}\text{C}$ —Derate linearly to 50%-rated voltage at  $125\text{ }^{\circ}\text{C}$

**Dielectric Strength:** 175% (1 minute)

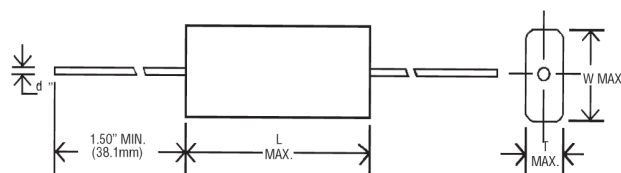
**Dissipation Factor:** 1% Max. ( $25\text{ }^{\circ}\text{C}$ , 1 kHz)

**Insulation Resistance:** 5,000  $\text{M}\Omega \times \mu\text{F}$   
10,000  $\text{M}\Omega$  Min.

**Life Test:** 1,000 Hours at  $85\text{ }^{\circ}\text{C}$  at 125% Rated Voltage



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

Cap. ( $\mu\text{F}$ )	Catalog Number	T Inches (mm)	W Inches (mm)	L Inches (mm)	d Inches (mm)	dV/dt V/ $\mu\text{s}$
<b>100 Vdc (65 Vac)</b>						
0.15	MMP1P15K-F	0.197 (5.0)	0.354 (9.0)	0.670 (17.0)	0.024 (0.6)	20
0.22	MMP1P22K-F	0.236 (6.0)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	20
0.33	MMP1P33K-F	0.236 (6.0)	0.433 (11.0)	0.670 (17.0)	0.024 (0.6)	20
0.47	MMP1P47K-F	0.236 (6.0)	0.394 (10.0)	0.906 (23.0)	0.024 (0.6)	12
0.68	MMP1P68K-F	0.256 (6.5)	0.433 (11.0)	0.906 (23.0)	0.024 (0.6)	12
1.00	MMP1W1K-F	0.276 (7.0)	0.492 (12.5)	0.906 (23.0)	0.032 (0.8)	12
1.50	MMP1W1P5K-F	0.276 (7.0)	0.492 (12.5)	1.063 (27.0)	0.032 (0.8)	8
2.20	MMP1W2P2K-F	0.354 (9.0)	0.630 (16.0)	1.063 (27.0)	0.032 (0.8)	8
3.30	MMP1W3P3K-F	0.433 (11.0)	0.729 (18.5)	1.063 (27.0)	0.032 (0.8)	8
4.70	MMP1W4P7K-F	0.354 (9.0)	0.729 (18.5)	1.378 (35.0)	0.032 (0.8)	6
6.80	MMP1W6P8K-F	0.512 (13.0)	0.906 (23.0)	1.378 (35.0)	0.032 (0.8)	6
10.00	MMP1W10K-F	0.630 (16.0)	1.044 (26.5)	1.378 (35.0)	0.032 (0.8)	6
<b>250 Vdc (160 Vac)</b>						
0.10	MMP2P1K-F	0.217 (5.5)	0.335 (8.5)	0.670 (17.0)	0.024 (0.6)	28
0.15	MMP2P15K-F	0.217 (5.5)	0.374 (9.5)	0.670 (17.0)	0.024 (0.6)	28
0.22	MMP2P22K-F	0.197 (5.0)	0.354 (9.0)	0.906 (23.0)	0.024 (0.6)	17
0.33	MMP2P33K-F	0.217 (5.5)	0.414 (10.5)	0.906 (23.0)	0.024 (0.6)	17
0.47	MMP2P47K-F	0.276 (7.0)	0.433 (11.0)	0.985 (25.0)	0.032 (0.8)	12

# Type MMP Polyester Film Capacitors

Cap. ( $\mu$ F)	Catalog Number	T Inches (mm)	W Inches (mm)	L Inches (mm)	d Inches (mm)	dV/dt V/ $\mu$ s
<b>250 Vdc (160 Vac) (cont'd)</b>						
0.680	MMP2P68K-F	0.256 (6.5)	0.492 (12.5)	1.103 (28.0)	0.032 (0.8)	10
1.000	MMP2W1K-F	0.295 (7.5)	0.532 (13.5)	1.103 (28.0)	0.032 (0.8)	10
1.500	MMP2W1P5K-F	0.335 (8.5)	0.591 (15.0)	1.260 (32.0)	0.032 (0.8)	10
2.200	MMP2W2P2K-F	0.394 (10.0)	0.709 (18.0)	1.378 (35.0)	0.032 (0.8)	8
3.300	MMP2W3P3K-F	0.492 (12.5)	0.866 (22.0)	1.457 (37.0)	0.032 (0.8)	8
4.700	MMP2W4P7K-F	0.630 (16.0)	0.985 (25.0)	1.694 (43.0)	0.032 (0.8)	6
6.800	MMP2W6P8K-F	0.748 (19.0)	1.063 (27.0)	1.575 (40.0)	0.032 (0.8)	8
10.000	MMP2W10K-F	0.630 (16.0)	1.063 (27.0)	1.930 (49.0)	0.032 (0.8)	6
<b>400 Vdc (200 Vac)</b>						
0.022	MMP4S22K-F	0.197 (5.0)	0.354 (9.0)	0.670 (17.0)	0.024 (0.6)	45
0.033	MMP4S33K-F	0.236 (6.0)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	45
0.047	MMP4S47K-F	0.236 (6.0)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	45
0.068	MMP4S68K-F	0.256 (6.5)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	45
0.100	MMP4P1K-F	0.256 (6.5)	0.433 (11.0)	0.748 (19.0)	0.024 (0.6)	27
0.150	MMP4P15K-F	0.256 (6.5)	0.453 (11.5)	0.866 (22.0)	0.024 (0.6)	27
0.220	MMP4P22K-F	0.295 (7.5)	0.532 (13.5)	0.985 (25.0)	0.024 (0.6)	15
0.330	MMP4P33K-F	0.315 (8.0)	0.571 (14.5)	1.063 (27.0)	0.032 (0.8)	15
0.470	MMP4P47K-F	0.354 (9.0)	0.610 (15.5)	1.063 (27.0)	0.032 (0.8)	15
0.680	MMP4P68K-F	0.354 (9.0)	0.630 (16.0)	1.378 (35.0)	0.032 (0.8)	14
1.000	MMP4W1K-F	0.414 (10.5)	0.729 (18.5)	1.378 (35.0)	0.032 (0.8)	14
1.500	MMP4W1P5K-F	0.492 (12.5)	0.827 (21.0)	1.378 (35.0)	0.032 (0.8)	14
2.200	MMP4W2P2K-F	0.551 (14.0)	0.906 (23.0)	1.575 (40.0)	0.032 (0.8)	12
3.300	MMP4W3P3K-F	0.670 (17.0)	1.024 (26.0)	1.575 (40.0)	0.032 (0.8)	12
4.700	MMP4W4P7K-F	0.827 (21.0)	1.182 (30.0)	1.575 (40.0)	0.032 (0.8)	12
<b>630 Vdc (250 Vac)</b>						
0.010	MMP6S1K-F	0.197 (5.0)	0.354 (9.0)	0.670 (17.0)	0.024 (0.6)	72
0.015	MMP6S15K-F	0.236 (6.0)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	72
0.022	MMP6S22K-F	0.236 (6.0)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	72
0.033	MMP6S33K-F	0.236 (6.0)	0.394 (10.0)	0.670 (17.0)	0.024 (0.6)	72
0.047	MMP6S47K-F	0.236 (6.0)	0.394 (10.0)	0.906 (23.0)	0.024 (0.6)	43
0.068	MMP6S68K-F	0.276 (7.0)	0.433 (11.0)	0.906 (23.0)	0.024 (0.6)	43
0.100	MMP6P1K-F	0.315 (8.0)	0.512 (13.0)	0.906 (23.0)	0.032 (0.8)	43
0.150	MMP6P15K-F	0.394 (10.0)	0.591 (15.0)	0.906 (23.0)	0.032 (0.8)	43
0.220	MMP6P22K-F	0.354 (9.0)	0.591 (15.0)	1.063 (27.0)	0.032 (0.8)	28
0.330	MMP6P33K-F	0.394 (10.0)	0.670 (17.0)	1.063 (27.0)	0.032 (0.8)	28
0.470	MMP6P47K-F	0.473 (12.0)	0.689 (17.5)	1.378 (35.0)	0.032 (0.8)	21
0.680	MMP6P68K-F	0.433 (11.0)	0.748 (19.0)	1.378 (35.0)	0.032 (0.8)	21
1.000	MMP6W1K-F	0.512 (13.0)	0.866 (22.0)	1.536 (39.0)	0.032 (0.8)	21
1.500	MMP6W1P5K-F	0.670 (17.0)	1.063 (27.0)	1.536 (39.0)	0.032 (0.8)	21
2.200	MMP6W2P2K-F	0.748 (19.0)	1.103 (28.0)	1.930 (49.0)	0.032 (0.8)	12