

Type WMF Polyester Film Capacitors

Film/Foil, Axial Leads - Commercial, Industrial Applications



Type WMF axial-leaded, polyester film/foil capacitors, available in a wide range of capacitance and voltage ratings, offer excellent moisture resistance capability with extended foil, non-inductive wound sections, epoxy sealed ends and a sealed outer wrapper. Like the Type DMT, Type WMF is an ideal choice for most applications, especially those with high peak currents.

Highlights

- Very high dV/dt
- Very high peak current
- Low inductance

Specifications

| | |
|---|---|
| Capacitance Range | .001 to 5 μ F |
| Capacitance Tolerance @ 1 kHz/25 °C | \pm 10% (K) Standard Tolerance, \pm 5% (J)/ \pm 20% (M) (Optional) |
| Rated Voltage | 50 to 630 Vdc |
| Operating Temperature Range with Ripple | -55 °C to 125 °C* *Full rated voltage at 85 °C - derated linearly to 50% rated at 105 °C |
| Insulation Resistance | 30,000 M Ω x μ F, 100,000 M Ω Min. |
| Dissipation Factor | .75% Max. (25 °C, 1 kHz) |
| Dielectric Strength | 250% |
| Life Test | 500 Hours at 85 °C at 125% Rated Voltage |
| RoHS Compliant | |

| Construction Details | |
|----------------------|--------------------------------|
| Case Material | UL510 Polyester Tape Wrap |
| Resin Material | UL94V-0 Epoxy Fill |
| Terminal Material | Tin Plated Copper - Clad Steel |

Dimensions



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Part Numbering System



Ratings

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

| Cap. μF | Catalog Part Number | D mm | L mm | d mm | dV/dt V/ μs |
|--------------------|---------------------|------|------|------|------------------------|
| 50 Vdc | | | | | |
| 0.0820 | WMF05S82K-F | 7.1 | 20.6 | 0.5 | 1500 |
| 0.1000 | WMF05P1K-F | 7.1 | 20.6 | 0.5 | 1500 |
| 0.1200 | WMF05P12K-F | 7.5 | 20.6 | 0.6 | 1500 |
| 0.1500 | WMF05P15K-F | 8.0 | 20.6 | 0.6 | 1500 |
| 0.1800 | WMF05P18K-F | 8.6 | 20.6 | 0.6 | 1500 |
| 0.2200 | WMF05P22K-F | 9.1 | 20.6 | 0.6 | 1500 |
| 0.2700 | WMF05P27K-F | 10.7 | 20.6 | 0.6 | 1500 |
| 0.3300 | WMF05P33K-F | 10.9 | 20.6 | 0.6 | 1500 |
| 0.3900 | WMF05P39K-F | 10.3 | 27.0 | 0.6 | 920 |
| 0.4700 | WMF05P47K-F | 10.3 | 27.0 | 0.6 | 920 |
| 0.5000 | WMF05P5K-F | 10.8 | 27.0 | 0.6 | 920 |
| 0.5600 | WMF05P56K-F | 12.2 | 27.0 | 0.6 | 920 |
| 0.6800 | WMF05P68K-F | 13.3 | 27.0 | 0.6 | 920 |
| 0.8200 | WMF05P82K-F | 14.4 | 27.0 | 0.6 | 920 |
| 1.0000 | WMF05W1K-F | 14.3 | 34.9 | 0.6 | 660 |
| 1.2500 | WMF05W1P25K-F | 14.6 | 34.9 | 0.8 | 660 |
| 1.5000 | WMF05W1P5K-F | 16.4 | 34.9 | 0.8 | 660 |
| 2.0000 | WMF05W2K-F | 16.8 | 41.3 | 0.8 | 660 |
| 3.0000 | WMF05W3K-F | 20.1 | 41.3 | 1.0 | 660 |
| 4.0000 | WMF05W4K-F | 20.9 | 46.3 | 1.0 | 310 |
| 5.0000 | WMF05W5K-F | 23.2 | 46.3 | 1.0 | 310 |
| 100 Vdc | | | | | |
| 0.0010 | WMF1D1K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0012 | WMF1D12K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0015 | WMF1D15K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0022 | WMF1D22K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0027 | WMF1D27K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0033 | WMF1D33K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0039 | WMF1D39K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0047 | WMF1D47K-F | 5.0 | 14.3 | 0.5 | 6300 |
| 0.0050 | WMF1D5K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0056 | WMF1D56K-F | 4.8 | 14.3 | 0.5 | 6300 |
| 0.0068 | WMF1D68K-F | 5.1 | 14.3 | 0.5 | 6300 |
| 0.0082 | WMF1D82K-F | 5.1 | 14.3 | 0.5 | 6300 |
| 0.0100 | WMF1S1K-F | 5.1 | 14.3 | 0.5 | 6300 |
| 0.0150 | WMF1S15K-F | 6.2 | 14.3 | 0.5 | 6300 |
| 0.0180 | WMF1S18K-F | 6.6 | 14.3 | 0.6 | 3200 |
| 0.0220 | WMF1S22K-F | 6.0 | 17.4 | 0.6 | 3200 |
| 0.0330 | WMF1S33K-F | 6.5 | 17.4 | 0.6 | 3200 |
| 0.0390 | WMF1S39K-F | 6.1 | 20.6 | 0.6 | 2100 |
| 0.0470 | WMF1S47K-F | 6.5 | 20.6 | 0.6 | 2100 |
| 0.0500 | WMF1S5K-F | 6.6 | 20.6 | 0.6 | 2100 |
| 0.0560 | WMF1S56K-F | 6.7 | 20.6 | 0.6 | 2100 |

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Film/Foil, Axial Leads

| Cap. μF | Catalog Part Number | D mm | L mm | d mm | dV/dt V/ μs | Cap. μF | Catalog Part Number | D mm | L mm | d mm | dV/dt V/ μs |
|-----------------------|------------------------|---------|---------|---------|---------------------------|-----------------------|------------------------|---------|---------|---------|---------------------------|
| 100 Vdc | | | | | | 0.2700 | WMF2P27K-F | 12.7 | 30.1 | 0.6 | 1900 |
| 0.0680 | WMF1S68K-F | 7.5 | 20.6 | 0.6 | 2100 | 0.3300 | WMF2P33K-F | 13.8 | 32.0 | 0.6 | 1500 |
| 0.0820 | WMF1S82K-F | 7.0 | 23.8 | 0.6 | 1600 | 0.3900 | WMF2P39K-F | 14.3 | 33.3 | 0.8 | 1500 |
| 0.1000 | WMF1P1K-F | 8.5 | 23.8 | 0.6 | 1600 | 0.4700 | WMF2P47K-F | 15.5 | 33.3 | 0.8 | 1500 |
| 0.1200 | WMF1P12K-F | 8.0 | 23.8 | 0.6 | 1600 | 0.5600 | WMF2P56K-F | 16.8 | 33.3 | 1.0 | 1500 |
| 0.1500 | WMF1P15K-F | 8.6 | 23.8 | 0.6 | 1600 | 0.6800 | WMF2P68K-F | 16.8 | 41.3 | 1.0 | 1500 |
| 0.1800 | WMF1P18K-F | 8.8 | 27.0 | 0.6 | 1600 | 0.8200 | WMF2P82K-F | 18.2 | 41.3 | 1.0 | 1500 |
| 0.2200 | WMF1P22K-F | 9.5 | 27.0 | 0.6 | 1600 | 1.0000 | WMF2W1K-F | 18.8 | 44.4 | 1.0 | 1500 |
| 0.2700 | WMF1P27K-F | 9.5 | 30.1 | 0.6 | 1600 | 1.2500 | WMF2W1P25K-F | 20.7 | 44.4 | 1.0 | 1500 |
| 0.3300 | WMF1P33K-F | 10.5 | 30.1 | 0.6 | 1600 | 1.5000 | WMF2W1P5K-F | 20.5 | 46.0 | 1.0 | 650 |
| 0.3900 | WMF1P39K-F | 10.9 | 30.1 | 0.6 | 1600 | 2.0000 | WMF2W2K-F | 24.5 | 47.6 | 1.0 | 650 |
| 0.4700 | WMF1P47K-F | 12.5 | 31.7 | 0.6 | 840 | 400 Vdc | | | | | |
| 0.5000 | WMF1P5K-F | 11.7 | 31.7 | 0.6 | 840 | 0.0010 | WMF4D1K-F | 4.8 | 17.4 | 0.5 | 14400 |
| 0.5600 | WMF1P56K-F | 12.3 | 31.7 | 0.8 | 840 | 0.0015 | WMF4D15K-F | 4.8 | 17.4 | 0.5 | 14400 |
| 0.6800 | WMF1P68K-F | 14.5 | 31.7 | 0.8 | 840 | 0.0018 | WMF4D18K-F | 4.8 | 17.4 | 0.5 | 14400 |
| 0.8200 | WMF1P82K-F | 13.7 | 35.9 | 0.8 | 840 | 0.0022 | WMF4D22K-F | 4.8 | 17.4 | 0.5 | 14400 |
| 1.0000 | WMF1W1K-F | 17.0 | 38.1 | 1.0 | 840 | 0.0027 | WMF4D27K-F | 5.3 | 17.4 | 0.5 | 14400 |
| 1.2500 | WMF1W1P25K-F | 16.4 | 38.1 | 1.0 | 840 | 0.0033 | WMF4D33K-F | 5.6 | 17.4 | 0.5 | 14400 |
| 1.5000 | WMF1W1P5K-F | 18.7 | 41.3 | 1.0 | 840 | 0.0039 | WMF4D39K-F | 5.9 | 17.4 | 0.5 | 14400 |
| 2.0000 | WMF1W2K-F | 21.2 | 41.3 | 1.0 | 840 | 0.0047 | WMF4D47K-F | 6.0 | 17.4 | 0.5 | 14400 |
| 200/250 Vdc | | | | | | 0.0056 | WMF4D56K-F | 6.7 | 17.4 | 0.6 | 14400 |
| 0.0010 | WMF2D1K-F | 4.8 | 14.3 | 0.5 | 7500 | 0.0068 | WMF4D68K-F | 7.2 | 17.4 | 0.6 | 14400 |
| 0.0015 | WMF2D15K-F | 4.8 | 14.3 | 0.5 | 7500 | 0.0082 | WMF4D82K-F | 7.7 | 17.4 | 0.6 | 14400 |
| 0.0022 | WMF2D22K-F | 4.8 | 14.3 | 0.5 | 7500 | 0.0100 | WMF4S1K-F | 8.4 | 17.4 | 0.6 | 14400 |
| 0.0027 | WMF2D27K-F | 4.8 | 14.3 | 0.5 | 7500 | 0.0150 | WMF4S15K-F | 9.9 | 17.4 | 0.6 | 14400 |
| 0.0033 | WMF2D33K-F | 4.8 | 14.3 | 0.5 | 7500 | 0.0180 | WMF4S18K-F | 8.0 | 20.6 | 0.6 | 14400 |
| 0.0039 | WMF2D39K-F | 4.8 | 14.3 | 0.5 | 7500 | 0.0220 | WMF4S22K-F | 8.9 | 20.6 | 0.6 | 7200 |
| 0.0047 | WMF2D47K-F | 5.1 | 14.3 | 0.5 | 7500 | 0.0270 | WMF4S27K-F | 9.6 | 20.6 | 0.6 | 7200 |
| 0.0050 | WMF2D5K-F | 5.1 | 14.3 | 0.5 | 7500 | 0.0330 | WMF4S33K-F | 9.5 | 22.2 | 0.6 | 6500 |
| 0.0056 | WMF2D56K-F | 5.1 | 14.3 | 0.5 | 7500 | 0.0390 | WMF4S39K-F | 10.2 | 22.2 | 0.6 | 6500 |
| 0.0068 | WMF2D68K-F | 5.1 | 14.3 | 0.5 | 7500 | 0.0470 | WMF4S47K-F | 11.0 | 22.2 | 0.6 | 6500 |
| 0.0082 | WMF2D82K-F | 5.5 | 14.3 | 0.5 | 7500 | 0.0560 | WMF4S56K-F | 9.8 | 27.0 | 0.6 | 3600 |
| 0.0100 | WMF2S1K-F | 5.8 | 14.3 | 0.5 | 7500 | 0.0680 | WMF4S68K-F | 10.3 | 27.0 | 0.6 | 3600 |
| 0.0150 | WMF2S15K-F | 6.7 | 14.3 | 0.6 | 7500 | 0.0820 | WMF4S82K-F | 10.3 | 27.0 | 0.6 | 3600 |
| 0.0180 | WMF2S18K-F | 7.1 | 14.3 | 0.6 | 7500 | 0.1000 | WMF4P1K-F | 12.4 | 27.0 | 0.6 | 3600 |
| 0.0220 | WMF2S22K-F | 6.6 | 17.4 | 0.6 | 3700 | 0.1500 | WMF4P15K-F | 13.6 | 31.7 | 0.6 | 2400 |
| 0.0270 | WMF2S27K-F | 6.6 | 17.4 | 0.6 | 3700 | 0.1800 | WMF4P18K-F | 13.6 | 34.9 | 0.6 | 2400 |
| 0.0330 | WMF2S33K-F | 7.0 | 20.6 | 0.6 | 2500 | 0.2200 | WMF4P22K-F | 15.1 | 34.9 | 0.8 | 2400 |
| 0.0390 | WMF2S39K-F | 7.5 | 20.6 | 0.6 | 2500 | 0.2700 | WMF4P27K-F | 15.5 | 38.1 | 0.8 | 2400 |
| 0.0470 | WMF2S47K-F | 7.5 | 20.6 | 0.6 | 2500 | 0.3300 | WMF4P33K-F | 15.9 | 41.3 | 0.8 | 2400 |
| 0.0560 | WMF2S56K-F | 7.5 | 20.6 | 0.6 | 2500 | 0.3900 | WMF4P39K-F | 15.9 | 41.3 | 0.8 | 2400 |
| 0.0680 | WMF2S68K-F | 8.0 | 20.6 | 0.6 | 2500 | 0.4700 | WMF4P47K-F | 18.5 | 41.3 | 1.0 | 2400 |
| 0.0820 | WMF2S82K-F | 7.6 | 23.8 | 0.6 | 1900 | 0.5600 | WMF4P56K-F | 19.2 | 44.4 | 1.0 | 2400 |
| 0.1000 | WMF2P1K-F | 8.1 | 23.8 | 0.6 | 1900 | 0.6800 | WMF4P68K-F | 20.8 | 44.4 | 1.0 | 2400 |
| 0.1500 | WMF2P15K-F | 9.5 | 23.8 | 0.6 | 1900 | 0.8200 | WMF4P82K-F | 22.7 | 44.4 | 1.0 | 2400 |
| 0.2200 | WMF2P22K-F | 10.5 | 30.1 | 0.6 | 1900 | 1.0000 | WMF4W1K-F | 22.7 | 50.8 | 1.0 | 1300 |

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Film/Foil, Axial Leads

| Cap. μF | Catalog Part Number | D mm | L mm | d mm | dV/dt V/ μs | Cap. μF | Catalog Part Number | D mm | L mm | d mm | dV/dt V/ μs |
|-----------------------|------------------------|---------|---------|---------|---------------------------|-----------------------|------------------------|---------|---------|---------|---------------------------|
| 1.2500 | WMF4W1P25K-F | 25.1 | 50.8 | 1.0 | 1300 | 0.0220 | WMF6S22K-F | 8.5 | 23.8 | 0.6 | 5800 |
| 1.5000 | WMF4W1P5K-F | 25.3 | 58.7 | 1.0 | 1300 | 0.0270 | WMF6S27K-F | 9.3 | 23.8 | 0.6 | 5800 |
| 600/630 Vdc | | | | | | 0.0330 | WMF6S33K-F | 10.0 | 25.4 | 0.6 | 5800 |
| 0.0010 | WMF6D1K-F | 5.0 | 20.6 | 0.5 | 9000 | 0.0390 | WMF6S39K-F | 10.0 | 25.4 | 0.6 | 5800 |
| 0.0012 | WMF6D12K-F | 5.1 | 20.6 | 0.5 | 9000 | 0.0470 | WMF6S47K-F | 10.9 | 25.4 | 0.6 | 5800 |
| 0.0015 | WMF6D15K-F | 5.1 | 20.6 | 0.5 | 9000 | 0.0560 | WMF6S56K-F | 11.7 | 25.4 | 0.6 | 5800 |
| 0.0018 | WMF6D18K-F | 5.1 | 20.6 | 0.5 | 9000 | 0.0680 | WMF6S68K-F | 12.7 | 25.4 | 0.8 | 5800 |
| 0.0022 | WMF6D22K-F | 5.5 | 20.6 | 0.5 | 9000 | 0.0820 | WMF6S82K-F | 12.9 | 34.9 | 0.8 | 3700 |
| 0.0027 | WMF6D27K-F | 5.5 | 20.6 | 0.5 | 9000 | 0.1000 | WMF6P1K-F | 14.7 | 34.9 | 0.8 | 3700 |
| 0.0033 | WMF6D33K-F | 5.8 | 20.6 | 0.5 | 9000 | 0.1200 | WMF6P12K-F | 16.0 | 34.9 | 0.8 | 3700 |
| 0.0039 | WMF6D39K-F | 6.1 | 20.6 | 0.5 | 9000 | 0.1500 | WMF6P15K-F | 17.4 | 34.9 | 1.0 | 3700 |
| 0.0047 | WMF6D47K-F | 6.6 | 20.6 | 0.5 | 9000 | 0.1800 | WMF6P18K-F | 16.9 | 41.3 | 1.0 | 3700 |
| 0.0056 | WMF6D56K-F | 6.9 | 20.6 | 0.6 | 9000 | 0.2200 | WMF6P22K-F | 18.3 | 41.3 | 1.0 | 3700 |
| 0.0068 | WMF6D68K-F | 7.4 | 20.6 | 0.6 | 9000 | 0.2700 | WMF6P27K-F | 20.1 | 41.3 | 1.0 | 3700 |
| 0.0082 | WMF6D82K-F | 7.4 | 20.6 | 0.6 | 9000 | 0.3300 | WMF6P33K-F | 19.0 | 50.8 | 1.0 | 1600 |
| 0.0100 | WMF6S1K-F | 7.4 | 20.6 | 0.6 | 9000 | 0.3900 | WMF6P39K-F | 20.7 | 50.8 | 1.0 | 1600 |
| 0.0150 | WMF6S15K-F | 7.5 | 23.8 | 0.6 | 5800 | 0.4700 | WMF6P47K-F | 22.5 | 50.8 | 1.0 | 1600 |
| 0.0180 | WMF6S18K-F | 8.0 | 23.8 | 0.6 | 5800 | 0.5600 | WMF6P56K-F | 24.2 | 50.8 | 1.0 | 1600 |
| | | | | | | 0.6800 | WMF6P68K-F | 26.2 | 50.8 | 1.0 | 1600 |
| | | | | | | 0.8200 | WMF6P82K-F | 29.5 | 50.8 | 1.0 | 1600 |
| | | | | | | 1.0000 | WMF6W1K-F | 30.1 | 65.1 | 1.0 | 1600 |