

Type WMC Polyester Film/Foil Capacitors

Axial Lead, Miniature Size for Automatic Insertion



Type WMC axial-leaded polyester film/foil capacitors are ideal for automatic insertion in printed circuit boards. It is an ultraminiature version of Type WMF and the sections of these non-inductive capacitors are constructed with extended foil, polyester film, with tinned copper-clad steel leads.

Highlights

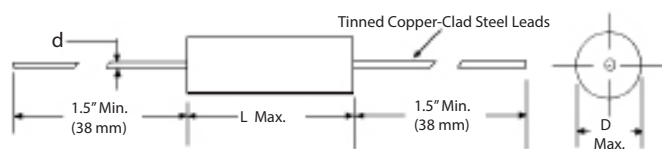
- Miniature Size
- Available on tape and reel
- Film/foil construction, non-inductive design
- High dV/dt ratings
- Good for high pulse applications

RoHS Compliant

Specifications

Capacitance Range:	.001 μ F to .47 μ F
Voltage Range:	80 to 400 Vdc
Capacitance Tolerance:	$\pm 10\%$ standard, $\pm 5\%$ optional
Temperature Range:	-55 to +125 $^{\circ}$ C (Full-rated voltage at 85 $^{\circ}$ C—Derate linearly to 50%-rated voltage at 125 $^{\circ}$ C)
Dielectric Strength:	250% of rated voltage for 1 minute
Dissipation Factor:	.75% Max. (25 $^{\circ}$ C, 1 kHz)
Insulation Resistance:	30,000 $M\Omega \times \mu$ F, 100,000 $M\Omega$ Min.
Life Test:	250 hours at 85 $^{\circ}$ C at 125% rated voltage

Outline Drawing



Lead Diameters:

No. 24 AWG to .282" (6.35mm) diameter

No. 22 AWG .283" (6.38mm) diameter and up

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

Pulse Ratings

Pulse Capability					
Rated Voltage	Body Length				
	$\leq .437$	.531-.593	.656-.718	0.906	1.218
	dV/dt — volts per microsecond, maximum				
80	5000	2100	1500	900	690
200	10800	5000	3000	1700	1260
400	30700	14500	9600	3600	2600

Ratings

Cap (μ F)	Catalog Part Number	D Inches (mm)	L Inches (mm)	d Inches (mm)
80 Vdc				
0.0010	WMC08D1K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0012	WMC08D12K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0015	WMC08D15K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0018	WMC08D18K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0022	WMC08D22K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0027	WMC08D27K-F	.185 (4.7)	.406 (10.3)	.020 (.5)

Cap (μ F)	Catalog Part Number	D Inches (mm)	L Inches (mm)	d Inches (mm)
80 Vdc				
0.0033	WMC08D33K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0039	WMC08D39K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0047	WMC08D47K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0056	WMC08D56K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0068	WMC08D68K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0082	WMC08D82K-F	.185 (4.7)	.406 (10.3)	.020 (.5)

Type WMC Polyester Film/Foil Capacitors

Cap (μF)	Catalog Part Number	D Inches (mm)	L Inches (mm)	d Inches (mm)
80 Vdc				
0.010	WMC08S1K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.012	WMC08S12K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.015	WMC08S15K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.018	WMC08S18K-F	.185 (4.7)	.531 (13.5)	.020 (.5)
0.022	WMC08S22K-F	.185 (4.7)	.531 (13.5)	.020 (.5)
0.027	WMC08S27K-F	.229 (5.8)	.468 (11.9)	.020 (.5)
0.033	WMC08S33K-F	.229 (5.8)	.468 (11.9)	.020 (.5)
0.039	WMC08S39K-F	.229 (5.8)	.593 (15.1)	.020 (.5)
0.047	WMC08S47K-F	.229 (5.8)	.593 (15.1)	.020 (.5)
0.056	WMC08S56K-F	.250 (6.3)	.593 (15.1)	.020 (.5)
0.068	WMC08S68K-F	.250 (6.3)	.593 (15.1)	.020 (.5)
0.082	WMC08S82K-F	.343 (8.7)	.531 (13.5)	.024 (.6)
0.10	WMC08P1K-F	.343 (8.7)	.531 (13.5)	.024 (.6)
0.12	WMC08P12K-F	.343 (8.7)	.656 (16.7)	.024 (.6)
0.15	WMC08P15K-F	.343 (8.7)	.656 (16.7)	.024 (.6)
0.18	WMC08P18K-F	.382 (9.7)	.656 (16.7)	.024 (.6)
0.22	WMC08P22K-F	.382 (9.7)	.656 (16.7)	.024 (.6)
0.27	WMC08P27K-F	.382 (9.7)	.905 (23.0)	.024 (.6)
0.33	WMC08P33K-F	.382 (9.7)	.905 (23.0)	.024 (.6)
0.39	WMC08P39K-F	.382 (9.7)	1.218 (30.9)	.024 (.6)
0.47	WMC08P47K-F	.382 (9.7)	1.218 (30.9)	.024 (.6)
200/250 Vdc				
0.0010	WMC2D1K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0012	WMC2D12K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0015	WMC2D15K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0018	WMC2D18K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0022	WMC2D22K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0027	WMC2D27K-F	.185 (4.7)	.406 (10.3)	.020 (.5)
0.0033	WMC2D33K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0039	WMC2D39K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0047	WMC2D47K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0056	WMC2D56K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0068	WMC2D68K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0082	WMC2D82K-F	.185 (4.7)	.531 (13.5)	.020 (.5)
0.010	WMC2S1K-F	.185 (4.7)	.531 (13.5)	.020 (.5)
0.012	WMC2S12K-F	.229 (5.8)	.468 (11.9)	.020 (.5)
0.015	WMC2S15K-F	.229 (5.8)	.468 (11.9)	.020 (.5)
0.018	WMC2S18K-F	.229 (5.8)	.656 (16.7)	.020 (.5)

Cap (μF)	Catalog Part Number	D Inches (mm)	L Inches (mm)	d Inches (mm)
200/250 Vdc				
0.022	WMC2S22K-F	.229 (5.8)	.656 (16.7)	.020 (.5)
0.027	WMC2S27K-F	.250 (6.3)	.656 (16.7)	.020 (.5)
0.033	WMC2S33K-F	.250 (6.3)	.656 (16.7)	.020 (.5)
0.039	WMC2S39K-F	.343 (8.7)	.531 (13.5)	.024 (.6)
0.047	WMC2S47K-F	.343 (8.7)	.531 (13.5)	.024 (.6)
0.056	WMC2S56K-F	.343 (8.7)	.656 (16.7)	.024 (.6)
0.068	WMC2S68K-F	.343 (8.7)	.656 (16.7)	.024 (.6)
0.082	WMC2S82K-F	.382 (9.7)	.656 (16.7)	.024 (.6)
0.10	WMC2P1K-F	.382 (9.7)	.656 (16.7)	.024 (.6)
0.12	WMC2P12K-F	.382 (9.7)	.906 (23.0)	.024 (.6)
0.15	WMC2P15K-F	.382 (9.7)	.906 (23.0)	.024 (.6)
0.18	WMC2P18K-F	.382 (9.7)	1.218 (30.9)	.024 (.6)
0.22	WMC2P22K-F	.382 (9.7)	1.218 (30.9)	.024 (.6)
400 Vdc				
0.0010	WMC4D1K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0012	WMC4D12K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0015	WMC4D15K-F	.185 (4.7)	.468 (11.9)	.020 (.5)
0.0018	WMC4D18K-F	.185 (4.7)	.531 (13.5)	.020 (.5)
0.0022	WMC4D22K-F	.185 (4.7)	.531 (13.5)	.020 (.5)
0.0027	WMC4D27K-F	.229 (5.8)	.531 (13.5)	.020 (.5)
0.0033	WMC4D33K-F	.229 (5.8)	.531 (13.5)	.020 (.5)
0.0039	WMC4D39K-F	.229 (5.8)	.531 (13.5)	.020 (.5)
0.0047	WMC4D47K-F	.229 (5.8)	.531 (13.5)	.020 (.5)
0.0056	WMC4D56K-F	.250 (6.3)	.656 (16.7)	.020 (.5)
0.0068	WMC4D68K-F	.250 (6.3)	.656 (16.7)	.020 (.5)
0.0082	WMC4D82K-F	.250 (6.3)	.656 (16.7)	.020 (.5)
0.010	WMC4S1K-F	.250 (6.3)	.656 (16.7)	.020 (.5)
0.012	WMC4S12K-F	.343 (8.7)	.593 (15.1)	.024 (.6)
0.015	WMC4S15K-F	.343 (8.7)	.593 (15.1)	.024 (.6)
0.018	WMC4S18K-F	.343 (8.7)	.718 (18.2)	.024 (.6)
0.022	WMC4S22K-F	.343 (8.7)	.718 (18.2)	.024 (.6)
0.027	WMC4S27K-F	.382 (9.7)	.718 (18.2)	.024 (.6)
0.033	WMC4S33K-F	.382 (9.7)	.718 (18.2)	.024 (.6)
0.039	WMC4S39K-F	.382 (9.7)	.906 (23.0)	.024 (.6)
0.047	WMC4S47K-F	.382 (9.7)	.906 (23.0)	.024 (.6)
0.056	WMC4S56K-F	.382 (9.7)	1.218 (30.9)	.024 (.6)
0.068	WMC4S68K-F	.382 (9.7)	1.218 (30.9)	.024 (.6)

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.