

Type M15 to M50 Multilayer Ceramic Capacitors

COG (NPO). X7R & Z5U Capacitors



Type M15 to M50 conformally coated radial leaded capacitors cover a wide range of temperature coefficients for a wide variety of applications.

Highlights

- Conformally coated, radial leaded
- Coating meets UL94V-0
- IECQ approved to:
 - QC300601/US0002 - NPO
 - QC300701/US0002 - X7R
 - QC300701/US0004 - Z5U

Specifications

Capacitance Range: 1 pF to 6.8 μ F

Voltage Range: 50, 100, 200 Vdc

Capacitance Tolerance: See ratings tables

Temperature Coefficient: COG (NPO), X7R & Z5U

Available in Tape and Ammo Pack Configuration: Add 'TA' to end of catalog part number

Ratings

RoHS Compliant

COG (NPO) Temperature Coefficient 200 Vdc																				
Catalog		Sizes (Inches)					Catalog		Sizes (Inches)					Catalog		Sizes (Inches)				
Part Number	Cap	L	H	T	S	Part Number	Cap	L	H	T	S	Part Number	Cap	L	H	T	S			
M15G109D2-F	1.0 pF	.150	.210	.130	.100	M15G120*2-F	12 pF	.150	.210	.130	.100	M15G101*2-F	100 pF	.150	.210	.130	.100			
M20G109D2-F	1.0 pF	.200	.260	.150	.100	M20G120*2-F	12 pF	.200	.260	.150	.100	M20G101*2-F	100 pF	.200	.260	.150	.100			
M22G109D2-F	1.0 pF	.200	.260	.150	.200	M22G120*2-F	12 pF	.200	.260	.150	.200	M22G101*2-F	100 pF	.200	.260	.150	.200			
M15G159D2-F	1.5 pF	.150	.210	.130	.100	M15G150*2-F	15 pF	.150	.210	.130	.100	M15G121*2-F	120 pF	.150	.210	.130	.100			
M20G159D2-F	1.5 pF	.200	.260	.150	.100	M20G150*2-F	15 pF	.200	.260	.150	.100	M20G121*2-F	120 pF	.200	.260	.150	.100			
M22G159D2-F	1.5 pF	.200	.260	.150	.200	M22G150*2-F	15 pF	.200	.260	.150	.200	M22G121*2-F	120 pF	.200	.260	.150	.200			
M15G229D2-F	2.2 pF	.150	.210	.130	.100	M15G180*2-F	18 pF	.150	.210	.130	.100	M15G151*2-F	150 pF	.150	.210	.130	.100			
M20G229D2-F	2.2 pF	.200	.260	.150	.100	M20G180*2-F	18 pF	.200	.260	.150	.100	M20G151*2-F	150 pF	.200	.260	.150	.100			
M22G229D2-F	2.2 pF	.200	.260	.150	.200	M22G180*2-F	18 pF	.200	.260	.150	.200	M22G151*2-F	150 pF	.200	.260	.150	.200			
M15G279D2-F	2.7 pF	.150	.210	.130	.100	M15G220*2-F	22 pF	.150	.210	.130	.100	M15G181*2-F	180 pF	.150	.210	.130	.100			
M20G279D2-F	2.7 pF	.200	.260	.150	.100	M20G220*2-F	22 pF	.200	.260	.150	.100	M20G181*2-F	180 pF	.200	.260	.150	.100			
M22G279D2-F	2.7 pF	.200	.260	.150	.200	M22G220*2-F	22 pF	.200	.260	.150	.200	M22G181*2-F	180 pF	.200	.260	.150	.200			
M15G339D2-F	3.3 pF	.150	.210	.130	.100	M15G270*2-F	27 pF	.150	.210	.130	.100	M15G221*2-F	220 pF	.150	.210	.130	.100			
M20G339D2-F	3.3 pF	.200	.260	.150	.100	M20G270*2-F	27 pF	.200	.260	.150	.100	M20G221*2-F	220 pF	.200	.260	.150	.100			
M22G339D2-F	3.3 pF	.200	.260	.150	.200	M22G270*2-F	27 pF	.200	.260	.150	.200	M22G221*2-F	220 pF	.200	.260	.150	.200			
M15G399D2-F	3.9 pF	.150	.210	.130	.100	M15G330*2-F	33 pF	.150	.210	.130	.100	M15G271*2-F	270 pF	.150	.210	.130	.100			
M20G399D2-F	3.9 pF	.200	.260	.150	.100	M20G330*2-F	33 pF	.200	.260	.150	.100	M20G271*2-F	270 pF	.200	.260	.150	.100			
M22G399D2-F	3.9 pF	.200	.260	.150	.200	M22G330*2-F	33 pF	.200	.260	.150	.200	M22G271*2-F	270 pF	.200	.260	.150	.200			
M15G479D2-F	4.7 pF	.150	.210	.130	.100	M15G390*2-F	39 pF	.150	.210	.130	.100	M15G331*2-F	330 pF	.150	.210	.130	.100			
M20G479D2-F	4.7 pF	.200	.260	.150	.100	M20G390*2-F	39 pF	.200	.260	.150	.100	M20G331*2-F	330 pF	.200	.260	.150	.100			
M22G479D2-F	4.7 pF	.200	.260	.150	.200	M22G390*2-F	39 pF	.200	.260	.150	.200	M22G331*2-F	330 pF	.200	.260	.150	.200			
M15G569D2-F	5.6 pF	.150	.210	.130	.100	M15G470*2-F	47 pF	.150	.210	.130	.100	M15G391*2-F	390 pF	.150	.210	.130	.100			
M20G569D2-F	5.6 pF	.200	.260	.150	.100	M20G470*2-F	47 pF	.200	.260	.150	.100	M20G391*2-F	390 pF	.200	.260	.150	.100			
M22G569D2-F	5.6 pF	.200	.260	.150	.200	M22G470*2-F	47 pF	.200	.260	.150	.200	M22G391*2-F	390 pF	.200	.260	.150	.200			
M15G689D2-F	6.8 pF	.150	.210	.130	.100	M15G560*2-F	56 pF	.150	.210	.130	.100	M15G471*2-F	470 pF	.150	.210	.130	.100			
M20G689D2-F	6.8 pF	.200	.260	.150	.100	M20G560*2-F	56 pF	.200	.260	.150	.100	M20G471*2-F	470 pF	.200	.260	.150	.100			
M22G689D2-F	6.8 pF	.200	.260	.150	.200	M22G560*2-F	56 pF	.200	.260	.150	.200	M22G471*2-F	470 pF	.200	.260	.150	.200			
M15G829D2-F	8.2 pF	.150	.210	.130	.100	M15G680*2-F	68 pF	.150	.210	.130	.100	M20G561*2-F	560 pF	.200	.260	.150	.100			
M20G829D2-F	8.2 pF	.200	.260	.150	.100	M20G680*2-F	68 pF	.200	.260	.150	.100	M22G561*2-F	560 pF	.200	.260	.150	.200			
M22G829D2-F	8.2 pF	.200	.260	.150	.200	M22G680*2-F	68 pF	.200	.260	.150	.200	M20G681*2-F	680 pF	.200	.260	.150	.100			
M15G100*2-F	10 pF	.150	.210	.130	.100	M15G820*2-F	82 pF	.150	.210	.130	.100	M22G681*2-F	680 pF	.200	.260	.150	.200			
M20G100*2-F	10 pF	.200	.260	.150	.100	M20G820*2-F	82 pF	.200	.260	.150	.100	M20G821*2-F	820 pF	.200	.260	.150	.100			
M22G100*2-F	10 pF	.200	.260	.150	.200	M22G820*2-F	82 pF	.200	.260	.150	.200	M22G821*2-F	820 pF	.200	.260	.150	.200			

*Insert proper letter symbol for tolerance

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1 pF to 8.2 pF available in D = \pm 5 pF only

10 pF to 22 pF: J = \pm 5%; K = \pm 10%

27 pF to 47 pF: G = \pm 2%; J = \pm 5%; K = \pm 10%

56 pF & Up: F = \pm 1%; G = \pm 2%; J = \pm 5%; K = \pm 10%

Add 'TR' to end of part number for Tape & Reel

M15, M20, M22 - 2,500 per reel

M30 - 1,500; M40 - 1,000 per reel; M50 - N/A

(Available in full reels only)

Type M15 to M50 Multilayer Ceramic Capacitors

Ratings

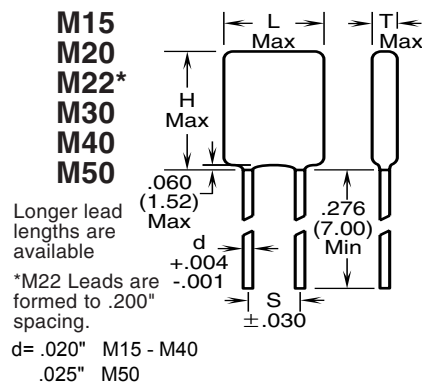
RoHS Compliant

Z5U Temperature Coefficient 50 Vdc																	
Catalog		Sizes (Inches)				Catalog		Sizes (Inches)				Catalog		Sizes (Inches)			
Part Number	Cap	L	H	T	S	Part Number	Cap	L	H	T	S	Part Number	Cap	L	H	T	S
M15U472*5-F	4700 pF	.150	.210	.130	.100	M15U683*5-F	.068 uF	.150	.210	.130	.100	M20U474*5-F	.47 uF	.200	.260	.150	.100
M15U562*5-F	5600 pF	.150	.210	.130	.100	M20U683*5-F	.068 uF	.200	.260	.150	.100	M22U474*5-F	.47 uF	.200	.260	.150	.200
M15U682*5-F	6800 pF	.150	.210	.130	.100	M22U683*5-F	.068 uF	.200	.260	.150	.200	M30U474*5-F	.47 uF	.300	.360	.200	.200
M15U822*5-F	8200 pF	.150	.210	.130	.100	M20U823*5-F	.082 uF	.200	.260	.150	.100	M20U564*5-F	.56 uF	.200	.260	.150	.100
M15U103*5-F	.010 uF	.150	.210	.130	.100	M22U823*5-F	.082 uF	.200	.260	.150	.200	M22U564*5-F	.56 uF	.200	.260	.150	.200
M15U123*5-F	.012 uF	.150	.210	.130	.100	M15U104*5-F	.10 uF	.150	.210	.130	.100	M30U564*5-F	.56 uF	.300	.360	.200	.200
M15U153*5-F	.015 uF	.150	.210	.130	.100	M20U104*5-F	.10 uF	.200	.260	.150	.100	M30U684*5-F	.68 uF	.300	.360	.200	.200
M15U183*5-F	.018 uF	.150	.210	.130	.100	M22U104*5-F	.10 uF	.200	.260	.150	.200	M30U824*5-F	.82 uF	.300	.360	.200	.200
M15U223*5-F	.022 uF	.150	.210	.130	.100	M20U124*5-F	.12 uF	.200	.260	.150	.100	M30U105*5-F	1.0 uF	.300	.360	.200	.200
M15U273*5-F	.027 uF	.150	.210	.130	.100	M22U124*5-F	.12 uF	.200	.260	.150	.200	M30U125*5-F	1.2 uF	.300	.360	.200	.200
M20U273*5-F	.027 uF	.200	.260	.150	.100	M20U154*5-F	.15 uF	.200	.260	.150	.100	M40U125*5-F	1.2 uF	.400	.460	.200	.200
M22U273*5-F	.027 uF	.200	.260	.150	.200	M22U154*5-F	.15 uF	.200	.260	.150	.200	M30U155*5-F	1.5 uF	.300	.360	.200	.200
M15U333*5-F	.033 uF	.150	.210	.130	.100	M20U184*5-F	.18 uF	.200	.260	.150	.100	M40U155*5-F	1.5 uF	.400	.460	.200	.200
M20U333*5-F	.033 uF	.200	.260	.150	.100	M22U184*5-F	.18 uF	.200	.260	.150	.200	M30U185*5-F	1.8 uF	.300	.360	.200	.200
M22U333*5-F	.033 uF	.200	.260	.150	.200	M20U224*5-F	.22 uF	.200	.260	.150	.100	M40U185*5-F	1.8 uF	.400	.460	.200	.200
M15U393*5-F	.039 uF	.150	.210	.130	.100	M22U224*5-F	.22 uF	.200	.260	.150	.200	M40U225*5-F	2.2 uF	.400	.460	.200	.200
M20U393*5-F	.039 uF	.200	.260	.150	.100	M20U274*5-F	.27 uF	.200	.260	.150	.100	M40U275*5-F	2.7 uF	.400	.460	.200	.200
M22U393*5-F	.039 uF	.200	.260	.150	.200	M22U274*5-F	.27 uF	.200	.260	.150	.200	M40U335*5-F	3.3 uF	.400	.460	.200	.200
M15U473*5-F	.047 uF	.150	.210	.130	.100	M30U274*5-F	.27 uF	.300	.360	.200	.200	M40U395*5-F	3.9 uF	.400	.460	.200	.200
M20U473*5-F	.047 uF	.200	.260	.150	.100	M20U334*5-F	.33 uF	.200	.260	.150	.100	M50U395*5-F	3.9 uF	.500	.560	.250	.400
M22U473*5-F	.047 uF	.200	.260	.150	.200	M22U334*5-F	.33 uF	.200	.260	.150	.200	M40U475*5-F	4.7 uF	.400	.460	.200	.200
M15U563*5-F	.056 uF	.150	.210	.130	.100	M30U334*5-F	.33 uF	.300	.360	.200	.200	M50U475*5-F	4.7 uF	.500	.560	.250	.400
M20U563*5-F	.056 uF	.200	.260	.150	.100	M20U394*5-F	.39 uF	.200	.260	.150	.100	M50U565*5-F	5.6 uF	.500	.560	.250	.400
M22U563*5-F	.056 uF	.200	.260	.150	.200	M22U394*5-F	.39 uF	.200	.260	.150	.200	M50U685*5-F	6.8 uF	.500	.560	.250	.400
						M30U394*5-F	.39 uF	.300	.360	.200	.200						

*Insert proper letter symbol for tolerance
K = 10%; M = ±20%

Add 'TR' to end of part number for Tape & Reel
M15, M20, M22 - 2,500 per reel
M30 - 1,500 per reel Full reels only on all
M40 - 1,000 per reel; sizes.
M50 - N/A

Outline Drawing



M30 Z5U 100 V 104 - 334 leads are formed to .200"
M30 X7R 50 V 154-105 leads are formed to .200"

Type M15 to M50 Multilayer Ceramic Capacitors

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