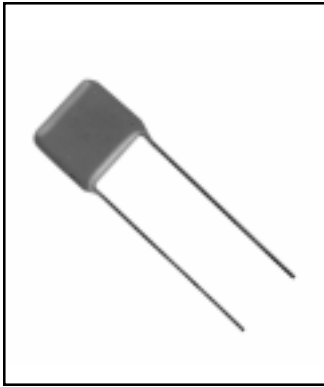


# M15 to M50 Series Multilayer Ceramic Capacitors



- Radial Leaded  
Conformally Coated
- Encapsulation consists of a moisture and shock resistant coating that meets UL94V-0
- Over 300 CV values available
- Applications :  
Filtering, Bypass, Coupling
- IECQ Approved to:  
QC300601/US0002 - NPO  
QC300701/US0002 - X7R  
QC300701/US0004 - Z5U
- Available in 1-1/4" Lead length  
As a Non Standard Item

## GENERAL SPECIFICATIONS

Voltage Range:  
50, 100, 200 VDC

Capacitance Range:  
1 pF to 6.8  $\mu$ F

Temperature Coefficients:  
COG(NPO), X7R, Z5U

Available in Tape and Reel configuration:  
Add 'TR' to end of catalog number.

## COG (NPO) Temperature Coefficient 200 VOLTS

Capacity	Size (Inches)				Catalog Number	Capacity	Size (Inches)				Catalog Number	Capacity	Size (Inches)				Catalog Number
	L	H	T	S			L	H	T	S			L	H	T	S	
1.0 pF	.150	.210	.100	.100	M15G109D2	27 pF	.150	.210	.100	.100	M15G270*2	470 pF	.150	.210	.100	.100	M15G471*2
1.0 pF	.200	.260	.125	.100	M20G109D2	27 pF	.200	.260	.125	.100	M20G270*2	470 pF	.200	.260	.125	.100	M20G471*2
1.0 pF	.200	.260	.125	.200	M22G109D2	27 pF	.200	.260	.125	.200	M22G270*2	470 pF	.200	.260	.125	.200	M22G471*2
1.5 pF	.150	.210	.100	.100	M15G159D2	33 pF	.150	.210	.100	.100	M15G330*2	560 pF	.200	.260	.125	.100	M20G561*2
1.5 pF	.200	.260	.125	.100	M20G159D2	33 pF	.200	.260	.125	.100	M20G330*2	560 pF	.200	.260	.125	.200	M22G561*2
1.5 pF	.200	.260	.125	.200	M22G159D2	33 pF	.200	.260	.125	.200	M22G330*2	680 pF	.200	.260	.125	.100	M20G681*2
2.2 pF	.150	.210	.100	.100	M15G229D2	39 pF	.150	.210	.100	.100	M15G390*2	680 pF	.200	.260	.125	.200	M22G681*2
2.2 pF	.200	.260	.125	.100	M20G229D2	39 pF	.200	.260	.125	.100	M20G390*2	820 pF	.200	.260	.125	.100	M20G821*2
2.2 pF	.200	.260	.125	.200	M22G229D2	39 pF	.200	.260	.125	.200	M22G390*2	820 pF	.200	.260	.125	.200	M22G821*2
2.7 pF	.150	.210	.100	.100	M15G279D2	47 pF	.150	.210	.100	.100	M15G470*2	1000 pF	.200	.260	.125	.100	M20G102*2
2.7 pF	.200	.260	.125	.100	M20G279D2	47 pF	.200	.260	.125	.100	M20G470*2	1000 pF	.200	.260	.125	.200	M22G102*2
2.7 pF	.200	.260	.125	.200	M22G279D2	47 pF	.200	.260	.125	.200	M22G470*2	1200 pF	.200	.260	.125	.100	M20G122*2
3.3 pF	.150	.210	.100	.100	M15G339D2	56 pF	.150	.210	.100	.100	M15G560*2	1200 pF	.200	.260	.125	.200	M22G122*2
3.3 pF	.200	.260	.125	.100	M20G339D2	56 pF	.200	.260	.125	.100	M20G560*2	1500 pF	.200	.260	.125	.100	M20G152*2
3.3 pF	.200	.260	.125	.200	M22G339D2	56 pF	.200	.260	.125	.200	M22G560*2	1500 pF	.200	.260	.125	.200	M22G152*2
3.9 pF	.150	.210	.100	.100	M15G399D2	68 pF	.150	.210	.100	.100	M15G680*2	1800 pF	.200	.260	.125	.100	M20G182*2
3.9 pF	.200	.260	.125	.100	M20G399D2	68 pF	.200	.260	.125	.100	M20G680*2	1800 pF	.200	.260	.125	.200	M22G182*2
3.9 pF	.200	.260	.125	.200	M22G399D2	68 pF	.200	.260	.125	.200	M22G680*2	2200 pF	.200	.260	.125	.100	M20G222*2
4.7 pF	.150	.210	.100	.100	M15G479D2	82 pF	.150	.210	.100	.100	M15G820*2	2200 pF	.200	.260	.125	.200	M22G222*2
4.7 pF	.200	.260	.125	.100	M20G479D2	82 pF	.200	.260	.125	.100	M20G820*2	2700 pF	.200	.260	.125	.100	M20G272*2
4.7 pF	.200	.260	.125	.200	M22G479D2	82 pF	.200	.260	.125	.200	M22G820*2	2700 pF	.200	.260	.125	.200	M22G272*2
5.6 pF	.150	.210	.100	.100	M15G569D2	100 pF	.150	.210	.100	.100	M15G101*2	2700 pF	.300	.360	.150	.200	M30G272*2
5.6 pF	.200	.260	.125	.100	M20G569D2	100 pF	.200	.260	.125	.100	M20G101*2	3300 pF	.200	.260	.125	.100	M20G332*2
5.6 pF	.200	.260	.125	.200	M22G569D2	100 pF	.200	.260	.125	.200	M22G101*2	3300 pF	.200	.260	.125	.200	M22G332*2
6.8 pF	.150	.210	.100	.100	M15G689D2	120 pF	.150	.210	.100	.100	M15G121*2	3300 pF	.300	.360	.150	.200	M30G332*2
6.8 pF	.200	.260	.125	.100	M20G689D2	120 pF	.200	.260	.125	.100	M20G121*2	3900 pF	.300	.360	.150	.200	M30G392*2
6.8 pF	.200	.260	.125	.200	M22G689D2	120 pF	.200	.260	.125	.200	M22G121*2	4700 pF	.300	.360	.150	.200	M30G472*2
8.2 pF	.150	.210	.100	.100	M15G829D2	150 pF	.150	.210	.100	.100	M15G151*2	5600 pF	.300	.360	.150	.200	M30G562*2
8.2 pF	.200	.260	.125	.100	M20G829D2	150 pF	.200	.260	.125	.100	M20G151*2	6800 pF	.300	.360	.150	.200	M30G682*2
8.2 pF	.200	.260	.125	.200	M22G829D2	150 pF	.200	.260	.125	.200	M22G151*2	8200 pF	.300	.360	.150	.200	M30G822*2
10 pF	.150	.210	.100	.100	M15G100*2	180 pF	.150	.210	.100	.100	M15G181*2	.01 $\mu$ F	.300	.360	.150	.200	M30G103*2
10 pF	.200	.260	.125	.100	M20G100*2	180 pF	.200	.260	.125	.100	M20G181*2	.012 $\mu$ F	.300	.360	.150	.200	M30G123*2
10 pF	.200	.260	.125	.200	M22G100*2	180 pF	.200	.260	.125	.200	M22G181*2	.012 $\mu$ F	.400	.460	.150	.200	M40G123*2
12 pF	.150	.210	.100	.100	M15G120*2	220 pF	.150	.210	.100	.100	M15G221*2	.015 $\mu$ F	.300	.360	.150	.200	M30G153*2
12 pF	.200	.260	.125	.100	M20G120*2	220 pF	.200	.260	.125	.100	M20G221*2	.015 $\mu$ F	.400	.460	.150	.200	M40G153*2
12 pF	.200	.260	.125	.200	M22G120*2	220 pF	.200	.260	.125	.200	M22G221*2	.018 $\mu$ F	.300	.360	.150	.200	M30G183*2
15 pF	.150	.210	.100	.100	M15G150*2	270 pF	.150	.210	.100	.100	M15G271*2	.018 $\mu$ F	.400	.460	.150	.200	M40G183*2
15 pF	.200	.260	.125	.100	M20G150*2	270 pF	.200	.260	.125	.100	M20G271*2	.022 $\mu$ F	.400	.460	.150	.200	M40G223*2
15 pF	.200	.260	.125	.200	M22G150*2	270 pF	.200	.260	.125	.200	M22G271*2	.027 $\mu$ F	.400	.460	.150	.200	M40G273*2
18 pF	.150	.210	.100	.100	M15G180*2	330 pF	.150	.210	.100	.100	M15G331*2	.033 $\mu$ F	.400	.460	.150	.200	M40G333*2
18 pF	.200	.260	.125	.100	M20G180*2	330 pF	.200	.260	.125	.100	M20G331*2	.039 $\mu$ F	.400	.460	.150	.200	M40G393*2
18 pF	.200	.260	.125	.200	M22G180*2	330 pF	.200	.260	.125	.200	M22G331*2	.039 $\mu$ F	.500	.560	.200	.400	M50G393*2
22 pF	.150	.210	.100	.100	M15G220*2	390 pF	.150	.210	.100	.100	M15G391*2	.047 $\mu$ F	.400	.460	.150	.200	M40G473*2
22 pF	.200	.260	.125	.100	M20G220*2	390 pF	.200	.260	.125	.100	M20G391*2	.047 $\mu$ F	.500	.560	.200	.400	M50G473*2
22 pF	.200	.260	.125	.200	M22G220*2	390 pF	.200	.260	.125	.200	M22G391*2	.056 $\mu$ F	.500	.560	.200	.400	M50G563*2
												.068 $\mu$ F	.500	.560	.200	.400	M50G683*2

Multilayer Ceramic Capacitors

Add 'TR' to end of part number for Tape & Reel  
M15, M20, M22 - 2,500 per reel  
M30 - 1,500 per reel  
M40 - 1,000 per reel  
M50 - N/A  
(Available in full reels only)

\* Insert proper letter symbol for tolerance:  
(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 =  $\pm 10\%$

# M15 to M50 Series Multilayer Ceramic Capacitors



## COG (NPO) Temperature Coefficient 100 VDC

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
120 pF	.150	.210	.100	.100	M15G121*1
150 pF	.150	.210	.100	.100	M15G151*1
180 pF	.150	.210	.100	.100	M15G181*1
220 pF	.150	.210	.100	.100	M15G221*1
270 pF	.150	.210	.100	.100	M15G271*1
330 pF	.150	.210	.100	.100	M15G331*1
390 pF	.150	.210	.100	.100	M15G391*1
470 pF	.150	.210	.100	.100	M15G471*1
560 pF	.150	.210	.100	.100	M15G561*1
680 pF	.150	.210	.100	.100	M15G681*1
680 pF	.200	.260	.125	.100	M20G681*1
680 pF	.200	.260	.125	.200	M22G681*1
820 pF	.150	.210	.100	.100	M15G821*1
820 pF	.200	.260	.125	.100	M20G821*1
820 pF	.200	.260	.125	.200	M22G821*1
1000 pF	.150	.210	.100	.100	M15G102*1
1000 pF	.200	.260	.125	.100	M20G102*1
1000 pF	.200	.260	.125	.200	M22G102*1
1200 pF	.200	.260	.125	.100	M20G122*1
1200 pF	.200	.260	.125	.200	M22G122*1

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
1500 pF	.200	.260	.125	.100	M20G152*1
1500 pF	.200	.260	.125	.200	M22G152*1
1800 pF	.200	.260	.125	.100	M20G182*1
1800 pF	.200	.260	.125	.200	M22G182*1
2200 pF	.200	.260	.125	.100	M20G222*1
2200 pF	.200	.260	.125	.200	M22G222*1
2700 pF	.200	.260	.125	.100	M20G272*1
2700 pF	.200	.260	.125	.200	M22G272*1
3300 pF	.200	.260	.125	.100	M20G332*1
3300 pF	.200	.260	.125	.200	M22G332*1
3300 pF	.300	.360	.150	.200	M30G332*1
3900 pF	.200	.260	.125	.100	M20G392*1
3900 pF	.200	.260	.125	.200	M22G392*1
3900 pF	.300	.360	.150	.200	M30G392*1
4700 pF	.200	.260	.125	.100	M20G472*1
4700 pF	.200	.260	.125	.200	M22G472*1
4700 pF	.300	.360	.150	.200	M30G472*1
5600 pF	.200	.260	.125	.100	M20G562*1
5600 pF	.200	.260	.125	.200	M22G562*1
5600 pF	.300	.360	.150	.200	M30G562*1

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
6800 pF	.300	.360	.150	.200	M30G682*1
8200 pF	.300	.360	.150	.200	M30G822*1
.01 uF	.300	.360	.150	.200	M30G103*1
.012 uF	.300	.360	.150	.200	M30G123*1
.015 uF	.300	.360	.150	.200	M30G153*1
.018 uF	.300	.360	.150	.200	M30G183*1
.022 uF	.300	.360	.150	.200	M30G223*1
.027 uF	.300	.360	.150	.200	M30G273*1
.027 uF	.400	.460	.150	.200	M40G273*1
.033 uF	.400	.460	.150	.200	M40G333*1
.039 uF	.400	.460	.150	.200	M40G393*1
.039 uF	.500	.560	.200	.400	M50G393*1
.047 uF	.400	.460	.150	.200	M40G473*1
.047 uF	.500	.560	.200	.400	M50G473*1
.056 uF	.400	.460	.150	.200	M40G563*1
.056 uF	.500	.560	.200	.400	M50G563*1
.068 uF	.400	.460	.150	.200	M40G683*1
.068 uF	.500	.560	.200	.400	M50G683*1
.082 uF	.500	.560	.200	.400	M50G823*1
.1 uF	.500	.560	.200	.400	M50G104*1
.12 uF	.500	.560	.200	.400	M50G124*1

\* Insert proper letter symbol for tolerance:

F = ±1%, G = ±2%, J = ±5%, K = ±10%

## X7R Temperature Coefficient 200 VDC

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
100 pF	.150	.210	.100	.100	M15R101*2
120 pF	.150	.210	.100	.100	M15R121*2
150 pF	.150	.210	.100	.100	M15R151*2
180 pF	.150	.210	.100	.100	M15R181*2
220 pF	.150	.210	.100	.100	M15R221*2
270 pF	.150	.210	.100	.100	M15R271*2
330 pF	.150	.210	.100	.100	M15R331*2
390 pF	.150	.210	.100	.100	M15R391*2
470 pF	.150	.210	.100	.100	M15R471*2
560 pF	.150	.210	.100	.100	M15R561*2
680 pF	.150	.210	.100	.100	M15R681*2
820 pF	.150	.210	.100	.100	M15R821*2
1000 pF	.150	.210	.100	.100	M15R102*2
1000 pF	.200	.260	.125	.100	M20R102*2
1000 pF	.200	.260	.125	.200	M22R102*2
1200 pF	.150	.210	.100	.100	M15R122*2
1200 pF	.200	.260	.125	.100	M20R122*2
1200 pF	.200	.260	.125	.200	M22R122*2
1500 pF	.150	.210	.100	.100	M15R152*2
1500 pF	.200	.260	.125	.100	M20R152*2
1500 pF	.200	.260	.125	.200	M22R152*2
1800 pF	.150	.210	.100	.100	M15R182*2
1800 pF	.200	.260	.125	.100	M20R182*2
1800 pF	.200	.260	.125	.200	M22R182*2

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
2200 pF	.150	.210	.100	.100	M15R222*2
2200 pF	.200	.260	.125	.100	M20R222*2
2200 pF	.200	.260	.125	.200	M22R222*2
2700 pF	.200	.260	.125	.100	M20R272*2
2700 pF	.200	.260	.125	.200	M22R272*2
3300 pF	.200	.260	.125	.100	M20R332*2
3300 pF	.200	.260	.125	.200	M22R332*2
3900 pF	.200	.260	.125	.100	M20R392*2
3900 pF	.200	.260	.125	.200	M22R392*2
4700 pF	.200	.260	.125	.100	M20R472*2
4700 pF	.200	.260	.125	.200	M22R472*2
5600 pF	.200	.260	.125	.100	M20R562*2
5600 pF	.200	.260	.125	.200	M22R562*2
6800 pF	.200	.260	.125	.100	M20R682*2
6800 pF	.200	.260	.125	.200	M22R682*2
8200 pF	.200	.260	.125	.100	M20R822*2
8200 pF	.200	.260	.125	.200	M22R822*2
.01 uF	.200	.260	.125	.100	M20R103*2
.01 uF	.200	.260	.125	.200	M22R103*2
.012 uF	.200	.260	.125	.100	M20R123*2
.012 uF	.200	.260	.125	.200	M22R123*2
.015 uF	.200	.260	.125	.100	M20R153*2
.015 uF	.200	.260	.125	.200	M22R153*2
.015 uF	.300	.360	.150	.200	M30R153*2

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
.018 uF	.200	.260	.125	.100	M20R183*2
.018 uF	.200	.260	.125	.200	M22R183*2
.018 uF	.300	.360	.150	.200	M30R183*2
.022 uF	.200	.260	.125	.100	M20R223*2
.022 uF	.200	.260	.125	.200	M22R223*2
.022 uF	.300	.360	.150	.200	M30R223*2
.027 uF	.300	.360	.150	.200	M30R273*2
.033 uF	.300	.360	.150	.200	M30R333*2
.039 uF	.300	.360	.150	.200	M30R393*2
.047 uF	.300	.360	.150	.200	M30R473*2
.056 uF	.300	.360	.150	.200	M30R563*2
.068 uF	.300	.360	.150	.200	M30R683*2
.082 uF	.300	.360	.150	.200	M30R823*2
.082 uF	.400	.460	.150	.200	M40R823*2
.1 uF	.300	.360	.150	.200	M30R104*2
.1 uF	.400	.460	.150	.200	M40R104*2
.12 uF	.400	.460	.150	.200	M40R124*2
.15 uF	.400	.460	.150	.200	M40R154*2
.18 uF	.400	.460	.150	.200	M40R184*2
.22 uF	.400	.460	.150	.200	M40R224*2
.22 uF	.500	.560	.200	.400	M50R224*2
.27 uF	.400	.460	.150	.200	M40R274*2
.27 uF	.500	.560	.200	.400	M50R274*2
.33 uF	.500	.560	.200	.400	M50R334*2
.39 uF	.500	.560	.200	.400	M50R394*2
.47 uF	.500	.560	.200	.400	M50R474*2

\* 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  
M40 - 1,000 per reel  
M50 - N/A  
(Available in full reels only)

# M15 to M50 Series Multilayer Ceramic Capacitors



## X7R Temperature Coefficient 100 VDC

Capacity	Size (Inches)				Catalog Number	Capacity	Size (Inches)				Catalog Number	Capacity	Size (Inches)				Catalog Number
	L	H	T	S			L	H	T	S			L	H	T	S	
820 pF	.150	.210	.100	.100	M15R821*1	.012 uF	.200	.260	.125	.100	M20R123*1	.1 uF	.200	.260	.125	.100	M20R104*1
1000 pF	.150	.210	.100	.100	M15R102*1	.012 uF	.200	.260	.125	.200	M22R123*1	.1 uF	.200	.260	.125	.200	M22R104*1
1200 pF	.150	.210	.100	.100	M15R122*1	.015 uF	.200	.260	.125	.100	M20R153*1	.1 uF	.300	.360	.150	.200	M30R104*1
1500 pF	.150	.210	.100	.100	M15R152*1	.015 uF	.200	.260	.125	.200	M22R153*1	.12 uF	.300	.360	.150	.200	M30R124*1
1800 pF	.150	.210	.100	.100	M15R182*1	.018 uF	.200	.260	.125	.100	M20R183*1	.15 uF	.300	.360	.150	.200	M30R154*1
2200 pF	.150	.210	.100	.100	M15R222*1	.018 uF	.200	.260	.125	.200	M22R183*1	.18 uF	.300	.360	.150	.200	M30R184*1
2700 pF	.150	.210	.100	.100	M15R272*1	.022 uF	.200	.260	.125	.100	M20R223*1	.22 uF	.300	.360	.150	.200	M30R224*1
3300 pF	.150	.210	.100	.100	M15R332*1	.022 uF	.200	.260	.125	.200	M22R223*1	.27 uF	.300	.360	.150	.200	M30R274*1
3900 pF	.150	.210	.100	.100	M15R392*1	.027 uF	.200	.260	.125	.100	M20R273*1	.33 uF	.300	.360	.150	.200	M30R334*1
4700 pF	.150	.210	.100	.100	M15R472*1	.027 uF	.200	.260	.125	.200	M22R273*1	.33 uF	.400	.460	.150	.200	M40R334*1
4700 pF	.200	.260	.125	.100	M20R472*1	.033 uF	.200	.260	.125	.100	M20R333*1	.39 uF	.300	.360	.150	.200	M30R394*1
4700 pF	.200	.260	.125	.200	M22R472*1	.033 uF	.200	.260	.125	.200	M22R333*1	.39 uF	.400	.460	.150	.200	M40R394*1
5600 pF	.150	.210	.100	.100	M15R562*1	.039 uF	.200	.260	.125	.100	M20R393*1	.47 uF	.300	.360	.150	.200	M30R474*1
5600 pF	.200	.260	.125	.100	M20R562*1	.039 uF	.200	.260	.125	.200	M22R393*1	.47 uF	.400	.460	.150	.200	M40R474*1
5600 pF	.200	.260	.125	.200	M22R562*1	.047 uF	.200	.260	.125	.100	M20R473*1	.56 uF	.400	.460	.150	.200	M40R564*1
6800 pF	.150	.210	.100	.100	M15R682*1	.047 uF	.200	.260	.125	.200	M22R473*1	.68 uF	.400	.460	.150	.200	M40R684*1
6800 pF	.200	.260	.125	.100	M20R682*1	.056 uF	.200	.260	.125	.100	M20R563*1	.68 uF	.500	.560	.200	.400	M50R684*1
6800 pF	.200	.260	.125	.200	M22R682*1	.056 uF	.200	.260	.125	.200	M22R563*1	.82 uF	.400	.460	.150	.200	M40R824*1
8200 pF	.150	.210	.100	.100	M15R822*1	.068 uF	.200	.260	.125	.100	M20R683*1	.82 uF	.500	.560	.200	.400	M50R824*1
8200 pF	.200	.260	.125	.100	M20R822*1	.068 uF	.200	.260	.125	.200	M22R683*1	1.0 uF	.400	.460	.150	.200	M40R105*1
8200 pF	.200	.260	.125	.200	M22R822*1	.068 uF	.300	.360	.150	.200	M30R683*1	1.0 uF	.500	.560	.200	.400	M50R105*1
.01 uF	.150	.210	.100	.100	M15R103*1	.082 uF	.200	.260	.125	.100	M20R823*1	1.2 uF	.500	.560	.200	.400	M50R125*1
.01 uF	.200	.260	.125	.100	M20R103*1	.082 uF	.200	.260	.125	.200	M22R823*1						
.01 uF	.200	.260	.125	.200	M22R103*1	.082 uF	.300	.360	.150	.200	M30R823*1						

\* Insert proper letter symbol for tolerance:  
K = ±10%, M = ±20%

## X7R Temperature Coefficient 50 VDC

Capacity	Size (Inches)				Catalog Number	Capacity	Size (Inches)				Catalog Number	Capacity	Size (Inches)				Catalog Number
	L	H	T	S			L	H	T	S			L	H	T	S	
3300 pF	.150	.210	.100	.100	M15R332*5	.033 uF	.150	.210	.100	.100	M15R333*5	.22 uF	.200	.260	.125	.100	M20R224*5
3900 pF	.150	.210	.100	.100	M15R392*5	.033 uF	.200	.260	.125	.100	M20R333*5	.22 uF	.200	.260	.125	.200	M22R224*5
4700 pF	.150	.210	.100	.100	M15R472*5	.033 uF	.200	.260	.125	.200	M22R333*5	.22 uF	.300	.360	.150	.200	M30R224*5
5600 pF	.150	.210	.100	.100	M15R562*5	.039 uF	.200	.260	.125	.100	M20R393*5	.27 uF	.200	.260	.125	.100	M20R274*5
6800 pF	.150	.210	.100	.100	M15R682*5	.039 uF	.200	.260	.125	.200	M22R393*5	.27 uF	.200	.260	.125	.200	M22R274*5
8200 pF	.150	.210	.100	.100	M15R822*5	.047 uF	.200	.260	.125	.100	M20R473*5	.27 uF	.300	.360	.150	.200	M30R274*5
.01 uF	.150	.210	.100	.100	M15R103*5	.047 uF	.200	.260	.125	.200	M22R473*5	.33 uF	.300	.360	.150	.200	M30R334*5
.012 uF	.150	.210	.100	.100	M15R123*5	.056 uF	.200	.260	.125	.100	M20R563*5	.39 uF	.300	.360	.150	.200	M30R394*5
.012 uF	.200	.260	.125	.100	M20R123*5	.056 uF	.200	.260	.125	.200	M22R563*5	.47 uF	.300	.360	.150	.200	M30R474*5
.012 uF	.200	.260	.125	.200	M22R123*5	.068 uF	.200	.260	.125	.100	M20R683*5	.56 uF	.300	.360	.150	.200	M30R564*5
.015 uF	.150	.210	.100	.100	M15R153*5	.068 uF	.200	.260	.125	.200	M22R683*5	.68 uF	.300	.360	.150	.200	M30R684*5
.015 uF	.200	.260	.125	.100	M20R153*5	.082 uF	.200	.260	.125	.100	M20R823*5	.82 uF	.300	.360	.150	.200	M30R824*5
.015 uF	.200	.260	.125	.200	M22R153*5	.082 uF	.200	.260	.125	.200	M22R823*5	1.0 uF	.300	.360	.150	.200	M30R105*5
.018 uF	.150	.210	.100	.100	M15R183*5	.1 uF	.200	.260	.125	.100	M20R104*5	1.0 uF	.400	.460	.150	.200	M40R105*5
.018 uF	.200	.260	.125	.100	M20R183*5	.1 uF	.200	.260	.125	.200	M22R104*5	1.2 uF	.400	.460	.150	.200	M40R125*5
.018 uF	.200	.260	.125	.200	M22R183*5	.12 uF	.200	.260	.125	.100	M20R124*5	1.5 uF	.400	.460	.150	.200	M40R155*5
.022 uF	.150	.210	.100	.100	M15R223*5	.12 uF	.200	.260	.125	.200	M22R124*5	1.8 uF	.400	.460	.150	.200	M40R185*5
.022 uF	.200	.260	.125	.100	M20R223*5	.15 uF	.200	.260	.125	.100	M20R154*5	2.2 uF	.400	.460	.150	.200	M40R225*5
.022 uF	.200	.260	.125	.200	M22R223*5	.15 uF	.200	.260	.125	.200	M22R154*5	2.2 uF	.500	.560	.200	.400	M50R225*5
.027 uF	.150	.210	.100	.100	M15R273*5	.15 uF	.300	.360	.150	.200	M30R154*5	2.7 uF	.500	.560	.200	.400	M50R275*5
.027 uF	.200	.260	.125	.100	M20R273*5	.18 uF	.200	.260	.125	.100	M20R184*5	3.3 uF	.500	.560	.200	.400	M50R335*5
.027 uF	.200	.260	.125	.200	M22R273*5	.18 uF	.200	.260	.125	.200	M22R184*5	3.9 uF	.500	.560	.200	.400	M50R395*5

\* 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  
M40 - 1,000 per reel  
M50 - N/A  
(Available in full reels only)

Multilayer Ceramic Capacitors

# M15 to M50 Series Multilayer Ceramic Capacitors



## Z5U Temperature Coefficient 100 VDC

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
1000 pF	.150	.210	.100	.100	M15U102*1
1200 pF	.150	.210	.100	.100	M15U122*1
1500 pF	.150	.210	.100	.100	M15U152*1
1800 pF	.150	.210	.100	.100	M15U182*1
2200 pF	.150	.210	.100	.100	M15U222*1
2700 pF	.150	.210	.100	.100	M15U272*1
3300 pF	.150	.210	.100	.100	M15U332*1
3900 pF	.150	.210	.100	.100	M15U392*1
4700 pF	.150	.210	.100	.100	M15U472*1
5600 pF	.150	.210	.100	.100	M15U562*1
6800 uF	.150	.210	.100	.100	M15U682*1
8200 pF	.150	.210	.100	.100	M15U822*1
.01 uF	.150	.210	.100	.100	M15U103*1
.01 uF	.200	.260	.125	.100	M20U103*1
.01 uF	.200	.260	.125	.200	M22U103*1
.012 uF	.150	.210	.100	.100	M15U123*1
.012 uF	.200	.260	.125	.100	M20U123*1
.012 uF	.200	.260	.125	.200	M22U123*1
.015 uF	.150	.210	.100	.100	M15U153*1
.015 uF	.200	.260	.125	.100	M20U153*1
.015 uF	.200	.260	.125	.200	M22U153*1
.018 uF	.150	.210	.100	.100	M15U183*1
.018 uF	.200	.260	.125	.100	M20U183*1
.018 uF	.200	.260	.125	.200	M22U183*1

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
.022 uF	.200	.260	.125	.100	M20U223*1
.022 uF	.200	.260	.125	.200	M22U223*1
.027 uF	.200	.260	.125	.100	M20U273*1
.027 uF	.200	.260	.125	.200	M22U273*1
.033 uF	.200	.260	.125	.100	M20U333*1
.033 uF	.200	.260	.125	.200	M22U333*1
.039 uF	.200	.260	.125	.100	M20U393*1
.039 uF	.200	.260	.125	.200	M22U393*1
.047 uF	.200	.260	.125	.100	M20U473*1
.047 uF	.200	.260	.125	.200	M22U473*1
.056 uF	.200	.260	.125	.100	M20U563*1
.056 uF	.200	.260	.125	.200	M22U563*1
.068 uF	.200	.260	.125	.100	M20U683*1
.068 uF	.200	.260	.125	.200	M22U683*1
.082 uF	.200	.260	.125	.100	M20U823*1
.082 uF	.200	.260	.125	.200	M22U823*1
.1 uF	.200	.260	.125	.100	M20U104*1
.1 uF	.200	.260	.125	.200	M22U104*1
.1 uF	.300	.360	.150	.200	M30U104*1
.12 uF	.200	.260	.125	.100	M20U124*1
.12 uF	.200	.260	.125	.200	M22U124*1
.12 uF	.300	.360	.150	.200	M30U124*1
.15 uF	.200	.260	.125	.100	M20U154*1

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
.15 uF	.200	.260	.125	.200	M22U154*1
.15 uF	.300	.360	.150	.200	M30U154*1
.18 uF	.300	.360	.150	.200	M30U184*1
.22 uF	.300	.360	.150	.200	M30U224*1
.27 uF	.300	.360	.150	.200	M30U274*1
.33 uF	.300	.360	.150	.200	M30U334*1
.33 uF	.400	.460	.150	.200	M40U334*1
.39 uF	.300	.360	.150	.200	M30U394*1
.39 uF	.400	.460	.150	.200	M40U394*1
.47 uF	.300	.360	.150	.200	M30U474*1
.47 uF	.400	.460	.150	.200	M40U474*1
.56 uF	.400	.460	.150	.200	M40U564*1
.68 uF	.400	.460	.150	.200	M40U684*1
.82 uF	.400	.460	.150	.200	M40U824*1
1.0 uF	.400	.460	.150	.200	M40U105*1
1.0 uF	.500	.560	.200	.400	M50U105*1
1.2 uF	.400	.460	.150	.200	M40U125*1
1.2 uF	.500	.560	.200	.400	M50U125*1
1.5 uF	.400	.460	.150	.200	M40U155*1
1.5 uF	.500	.560	.200	.400	M50U155*1
1.8 uF	.500	.560	.200	.400	M50U185*1
2.2 uF	.500	.560	.200	.400	M50U225*1

\* Insert proper letter symbol for tolerance:  
M = ±20%, Z = + 80% - 20%, P = + 100% - 0%

## Z5U Temperature Coefficient 50 VDC

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
4700 pF	.150	.210	.100	.100	M15U472*5
5600 pF	.150	.210	.100	.100	M15U562*5
6800 pF	.150	.210	.100	.100	M15U682*5
8200 pF	.150	.210	.100	.100	M15U822*5
.01 uF	.150	.210	.100	.100	M15U103*5
.012 uF	.150	.210	.100	.100	M15U123*5
.015 uF	.150	.210	.100	.100	M15U153*5
.018 uF	.150	.210	.100	.100	M15U183*5
.022 uF	.150	.210	.100	.100	M15U223*5
.027 uF	.150	.210	.100	.100	M15U273*5
.027 uF	.200	.260	.125	.100	M20U273*5
.027 uF	.200	.260	.125	.200	M22U273*5
.033 uF	.150	.210	.100	.100	M15U333*5
.033 uF	.200	.260	.125	.100	M20U333*5
.033 uF	.200	.260	.125	.200	M22U333*5
.039 uF	.150	.210	.100	.100	M15U393*5
.039 uF	.200	.260	.125	.100	M20U393*5
.039 uF	.200	.260	.125	.200	M22U393*5
.047 uF	.150	.210	.100	.100	M15U473*5
.047 uF	.200	.260	.125	.100	M20U473*5
.047 uF	.200	.260	.125	.200	M22U473*5
.056 uF	.150	.210	.100	.100	M15U563*5
.056 uF	.200	.260	.125	.100	M20U563*5
.056 uF	.200	.260	.125	.200	M22U563*5

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
.068 uF	.150	.210	.100	.100	M15U683*5
.068 uF	.200	.260	.125	.100	M20U683*5
.068 uF	.200	.260	.125	.200	M22U683*5
.082 uF	.200	.260	.125	.100	M20U823*5
.082 uF	.200	.260	.125	.200	M22U823*5
.1 uF	.150	.210	.100	.100	M15U104*5
.1 uF	.200	.260	.125	.100	M20U104*5
.1 uF	.200	.260	.125	.200	M22U104*5
.12 uF	.200	.260	.125	.100	M20U124*5
.12 uF	.200	.260	.125	.200	M22U124*5
.15 uF	.200	.260	.125	.100	M20U154*5
.15 uF	.200	.260	.125	.200	M22U154*5
.18 uF	.200	.260	.125	.100	M20U184*5
.18 uF	.200	.260	.125	.200	M22U184*5
.22 uF	.200	.260	.125	.100	M20U224*5
.22 uF	.200	.260	.125	.200	M22U224*5
.27 uF	.200	.260	.125	.100	M20U274*5
.27 uF	.200	.260	.125	.200	M22U274*5
.27 uF	.300	.360	.150	.200	M30U274*5
.33 uF	.200	.260	.125	.100	M20U334*5
.33 uF	.200	.260	.125	.200	M22U334*5
.33 uF	.300	.360	.150	.200	M30U334*5
.39 uF	.200	.260	.125	.100	M20U394*5
.39 uF	.200	.260	.125	.200	M22U394*5
.39 uF	.300	.360	.150	.200	M30U394*5

Capacity	Size (Inches)				Catalog Number
	L	H	T	S	
.47 uF	.200	.260	.125	.100	M20U474*5
.47 uF	.200	.260	.125	.200	M22U474*5
.47 uF	.300	.360	.150	.200	M30U474*5
.56 uF	.200	.260	.125	.100	M20U564*5
.56 uF	.200	.260	.125	.200	M22U564*5
.56 uF	.300	.360	.150	.200	M30U564*5
.68 uF	.300	.360	.150	.200	M30U684*5
.82 uF	.300	.360	.150	.200	M30U824*5
1.0 uF	.300	.360	.150	.200	M30U105*5
1.2 uF	.300	.360	.150	.200	M30U125*5
1.2 uF	.400	.460	.150	.200	M40U125*5
1.5 uF	.300	.360	.150	.200	M30U155*5
1.5 uF	.400	.460	.150	.200	M40U155*5
1.8 uF	.300	.360	.150	.200	M30U185*5
1.8 uF	.400	.460	.150	.200	M40U185*5
2.2 uF	.400	.460	.150	.200	M40U225*5
2.7 uF	.400	.460	.150	.200	M40U275*5
3.3 uF	.400	.460	.150	.200	M40U335*5
3.9 uF	.400	.460	.150	.200	M40U395*5
3.9 uF	.500	.560	.200	.400	M50U395*5
4.7 uF	.400	.460	.150	.200	M40U475*5
4.7 uF	.500	.560	.200	.400	M50U475*5
5.6 uF	.500	.560	.200	.400	M50U565*5
6.8 uF	.500	.560	.200	.400	M50U685*5

\* Insert proper letter symbol for tolerance:  
M = ±20%, Z = + 80% - 20%, P = + 100% - 0%

Add 'TR' to end of part number for Tape & Reel  
M15, M20, M22 - 2,500 per reel  
M30 - 1,500 per reel  
M40 - 1,000 per reel  
M50 - N/A  
(Available in full reels only)