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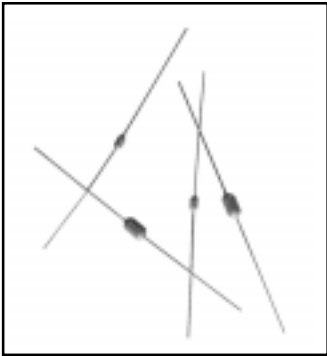
**JAMECO**<sup>®</sup>  
ELECTRONICS

**www.Jameco.com ♦ 1-800-831-4242**

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Jameco Part Number 536542

# P10 to P40 Series Multilayer Ceramic Capacitors



- Axial Leaded  
Conformally Coated
- Encapsulation consists of a moisture and shock resistant coating that meets UL94V-0
- Over 138 CV values available
- Applications:  
Filtering, Bypass, Coupling
- IECQ Approved to:  
QC300601/US0001 - NPO  
QC300701/US0003 - X7R  
QC300701/US0001 - Z5U

## GENERAL SPECIFICATIONS

Voltage Range:  
50, 100, 200 VDC

Capacitance Range:  
10 pF to 1.0  $\mu$ 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 VDC

Capacity	Size (Inches)		Catalog Number	Capacity	Size (Inches)		Catalog Number
	D	L			D	L	
10 pF	.100	.170	P10G100*2	68 pF	.100	.170	P10G680*2
12 pF	.100	.170	P10G120*2	82 pF	.100	.170	P10G820*2
15 pF	.100	.170	P10G150*2	100 pF	.100	.170	P10G101*2
18 pF	.100	.170	P10G180*2	120 pF	.100	.170	P10G121*2
22 pF	.100	.170	P10G220*2	150 pF	.100	.170	P10G151*2
33 pF	.100	.170	P10G330*2	180 pF	.100	.170	P10G181*2
39 pF	.100	.170	P10G390*2	220 pF	.100	.170	P10G221*2
47 pF	.100	.170	P10G470*2	270 pF	.100	.170	P10G271*2
56 pF	.100	.170	P10G560*2				

\* Insert proper letter symbol for tolerance: J =  $\pm$ 5%, K =  $\pm$  10%

### COG (NPO) Temperature Coefficient 100 VDC

Capacity	Size (Inches)		Catalog Number	Capacity	Size (Inches)		Catalog Number	Capacity	Size (Inches)		Catalog Number
	D	L			D	L			D	L	
10 pF	.100	.170	P10G100*1	120 pF	.100	.170	P10G121*1	1500 pF	.100	.260	P20G152*1
12 pF	.100	.170	P10G120*1	150 pF	.100	.170	P10G151*1	1800 pF	.100	.260	P20G182*1
15 pF	.100	.170	P10G150*1	180 pF	.100	.170	P10G181*1	2200 pF	.100	.260	P20G222*1
18 pF	.100	.170	P10G180*1	220 pF	.100	.170	P10G221*1	2700 pF	.150	.290	P30G272*1
22 pF	.100	.170	P10G220*1	270 pF	.100	.170	P10G271*1	3300 pF	.150	.290	P30G332*1
27 pF	.100	.170	P10G270*1	330 pF	.100	.170	P10G331*1	3900 pF	.150	.290	P30G392*1
33 pF	.100	.170	P10G330*1	390 pF	.100	.170	P10G391*1	4700 pF	.150	.290	P30G472*1
39 pF	.100	.170	P10G390*1	470 pF	.100	.170	P10G471*1	5600 pF	.150	.290	P30G562*1
47 pF	.100	.170	P10G470*1	560 pF	.100	.170	P10G561*1	6800 pF	.150	.290	P30G682*1
56 pF	.100	.170	P10G560*1	680 pF	.100	.170	P10G681*1	8200 pF	.150	.290	P30G822*1
68 pF	.100	.170	P10G680*1	820 pF	.100	.170	P10G821*1	.01 $\mu$ F	.150	.400	P40G103*1
82 pF	.100	.170	P10G820*1	1000 pF	.100	.170	P10G102*1	.012 $\mu$ F	.150	.400	P40G123*1
100 pF	.100	.170	P10G101*1	1200 pF	.100	.260	P20G122*1	.015 $\mu$ F	.150	.400	P40G153*1

\* Insert proper letter symbol for tolerance: J =  $\pm$ 5%, K =  $\pm$  10%

### COG (NPO) Temperature Coefficient 50 VDC

Capacity	Size (Inches)		Catalog Number	Capacity	Size (Inches)		Catalog Number	Capacity	Size (Inches)		Catalog Number
	D	L			D	L			D	L	
560 pF	.100	.170	P10G561*5	1800 pF	.120	.170	P12G182*5	4700 pF	.150	.290	P30G472*5
680 pF	.100	.170	P10G681*5	1800 pF	.100	.260	P20G182*5	5600 pF	.150	.290	P30G562*5
820 pF	.100	.170	P10G821*5	2200 pF	.120	.170	P12G222*5	6800 pF	.150	.290	P30G682*5
1000 pF	.100	.170	P10G102*5	2200 pF	.100	.260	P20G222*5	8200 pF	.150	.290	P30G822*5
1200 pF	.120	.170	P12G122*5	2700 pF	.120	.170	P12G272*5	.01 $\mu$ F	.150	.400	P40G103*5
1200 pF	.100	.260	P20G122*5	2700 pF	.150	.290	P30G272*5	.012 $\mu$ F	.150	.400	P40G123*5
1500 pF	.120	.170	P12G152*5	3300 pF	.150	.290	P30G332*5	.015 $\mu$ F	.150	.400	P40G153*5
1500 pF	.100	.260	P20G152*5	3900 pF	.150	.290	P30G392*5				

\* Insert proper letter symbol for tolerance:  
J =  $\pm$ 5%, K =  $\pm$  10%

Add 'TR' to end of part number for Tape & Reel  
P10, P12, P20 - 5,000 per reel  
P30, P40 - 2,500 per reel  
(Available in full reels only)

# P10 to P40 Series Multilayer Ceramic Capacitors



## X7R Temperature Coefficient 100 VDC

Capacity	Size (Inches)		Catalog Number
	D	L	
470 pF	.100	.170	P10R471*1
560 pF	.100	.170	P10R561*1
680 pF	.100	.170	P10R681*1
820 pF	.100	.170	P10R821*1
1000 pF	.100	.170	P10R102*1
1200 pF	.100	.170	P10R122*1
1500 pF	.100	.170	P10R152*1
1800 pF	.100	.170	P10R182*1
2200 pF	.100	.170	P10R222*1
2700 pF	.100	.170	P10R272*1
3300 pF	.100	.170	P10R332*1
3900 pF	.100	.170	P10R392*1

Capacity	Size (Inches)		Catalog Number
	D	L	
4700 pF	.100	.170	P10R472*1
5600 pF	.100	.170	P10R562*1
6800 pF	.100	.170	P10R682*1
8200 pF	.100	.170	P10R822*1
.01 uF	.100	.170	P10R103*1
.012 uF	.100	.170	P10R123*1
.015 uF	.120	.170	P12R153*1
.015 uF	.100	.260	P20R153*1
.018 uF	.120	.170	P12R183*1
.018 uF	.100	.260	P20R183*1
.022 uF	.120	.170	P12R223*1
.022 uF	.100	.260	P20R223*1

Capacity	Size (Inches)		Catalog Number
	D	L	
.027 uF	.120	.170	P12R273*1
.027 uF	.100	.260	P20R273*1
.033 uF	.100	.260	P20R333*1
.039 uF	.150	.290	P30R393*1
.047 uF	.150	.290	P30R473*1
.056 uF	.150	.290	P30R563*1
.068 uF	.150	.290	P30R683*1
.082 uF	.150	.290	P30R823*1
.1 uF	.150	.290	P30R104*1
.12 uF	.150	.290	P40R124*1
.15 uF	.150	.400	P40R154*1

Also available in 200VDC, If ordering 200VDC replace the 1 at end of part number with a 2.

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

## X7R Temperature Coefficient 50 VDC

Capacity	Size (Inches)		Catalog Number
	D	L	
8200 pF	.100	.170	P10R822*5
.01 uF	.100	.170	P10R103*5
.012 uF	.100	.170	P10R123*5
.015 uF	.100	.170	P10R153*5
.018 uF	.100	.170	P10R183*5
.022 uF	.100	.170	P10R223*5
.027 uF	.100	.170	P10R273*5
.033 uF	.100	.170	P10R333*5
.039 uF	.100	.170	P10R393*5

Capacity	Size (Inches)		Catalog Number
	D	L	
.047 uF	.100	.170	P10R473*5
.056 uF	.120	.170	P12R563*5
.056 uF	.100	.260	P20R563*5
.068 uF	.120	.170	P12R683*5
.068 uF	.100	.260	P20R683*5
.082 uF	.120	.170	P12R823*5
.082 uF	.100	.260	P20R823*5
.1 uF	.120	.170	P12R104*5
.1 uF	.100	.260	P20R104*5

Capacity	Size (Inches)		Catalog Number
	D	L	
.12 uF	.150	.290	P30R124*5
.15 uF	.150	.290	P30R154*5
.18 uF	.150	.290	P30R184*5
.22 uF	.150	.290	P30R224*5
.27 uF	.150	.290	P30R274*5
.33 uF	.150	.400	P40R334*5
.39 uF	.150	.400	P40R394*5
.47 uF	.150	.400	P40R474*5

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

## Z5U Temperature Coefficient 100 VDC

Capacity	Size (Inches)		Catalog Number
	D	L	
.01 uF	.100	.170	P10U103*1
.012 uF	.100	.170	P10U123*1
.015 uF	.100	.170	P10U153*1
.018 uF	.100	.170	P10U183*1
.022 uF	.100	.170	P10U223*1
.027 uF	.100	.260	P20U273*1

Capacity	Size (Inches)		Catalog Number
	D	L	
.033 uF	.100	.260	P20U333*1
.039 uF	.100	.260	P20U393*1
.047 uF	.100	.260	P20U473*1
.056 uF	.150	.290	P30U563*1
.068 uF	.150	.290	P30U683*1
.082 uF	.150	.290	P30U823*1

Capacity	Size (Inches)		Catalog Number
	D	L	
.1 uF	.150	.290	P30U104*1
.12 uF	.150	.290	P30U124*1
.15 uF	.150	.290	P30U154*1
.18 uF	.150	.400	P40U184*1
.22 uF	.150	.400	P40U224*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
	D	L	
.027 uF	0.100	0.170	P10U273*5
.033 uF	0.100	0.170	P10U333*5
.039 uF	0.100	0.170	P10U393*5
.047 uF	0.100	0.170	P10U473*5
.056 uF	0.100	0.170	P10U563*5
.068 uF	0.100	0.170	P10U683*5
.082 uF	0.100	0.170	P10U823*5
.1 uF	0.100	0.170	P10U104*5

Capacity	Size (Inches)		Catalog Number
	D	L	
.12 uF	0.100	0.170	P10U124*5
.12 uF	0.100	0.260	P20U124*5
.15 uF	0.100	0.170	P10U154*5
.18 uF	0.100	0.170	P10U184*5
.22 uF	0.100	0.170	P10U224*5
.27 uF	0.120	0.170	P12U274*5
.27 uF	0.100	0.260	P20U274*5
.33 uF	0.120	0.170	P12U334*5

Capacity	Size (Inches)		Catalog Number
	D	L	
.33 uF	0.100	0.260	P20U334*5
.39 uF	0.150	0.290	P30U394*5
.47 uF	0.150	0.290	P30U474*5
.56 uF	0.150	0.400	P40U564*5
.68 uF	0.150	0.400	P40U684*5
.82 uF	0.150	0.400	P40U824*5
1.0 uF	0.150	0.400	P40U105*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  
P10, P12, P20 - 5,000 per reel  
P30, P40 - 2,500 per reel  
(Available in full reels only)