

High Temperature Standard (+200°C) Axial and Radial Ceramic Cased Capacitors (C³) ACR/ARR/ACA/ARA Series

High temperature ceramic cased capacitors, with a new, unique design concept, are ideally suited for continuous operation up to +200°C. Problems associated with epoxy cased/epoxy potted capacitors, such as material deterioration, cracks in cases and potted areas, are nonexistent, even at +200°C.

COG

COG (NPO) capacitors, which exhibit little change in capacitance with variations in temperature, are used in RF oscillators, precision timing circuits, wave filters, and other circuits requiring a predictable linear temperature coefficient.

X7R

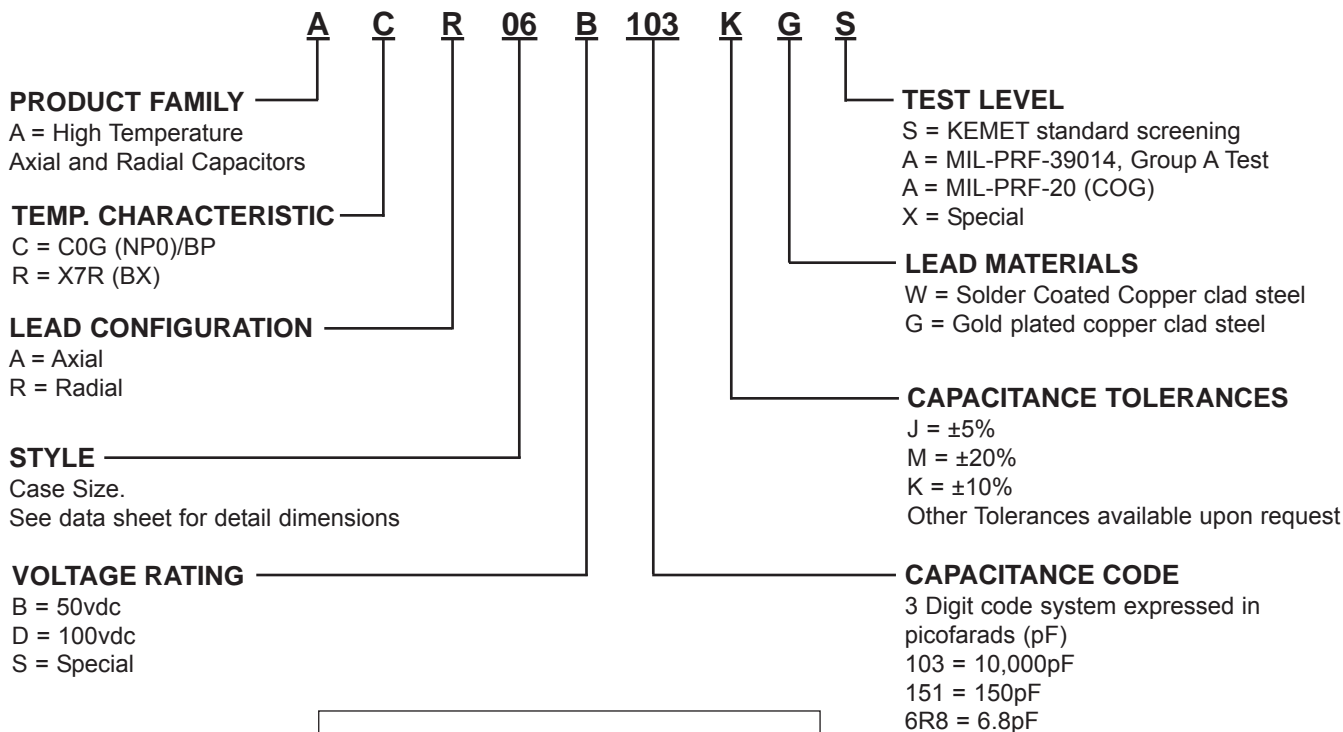
Specially formulated X7R ceramic materials result in a retention of 40% of the +25°C capacitance. Dissipation factor drops from 1.25% at +25°C to 0.1% at +200°C. At +120°C the ceramic undergoes a transformation (crystalline inversion) resulting in the material changing from ferroelectric to paraelectric - no piezoelectric behavior.

Typical applications include oil well logging (down hole), jet engine controls and geophysical pressure probes.

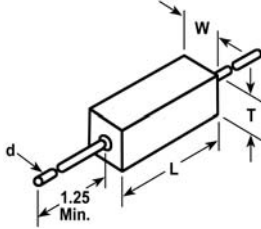
INSTALLATION:

Parts should be soldered using a heat sink between the soldering point and the part using a soldering iron rated between 18-30 watts. Soldering temperature should not exceed +300°C.

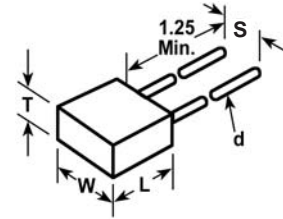
PART NUMBER AND ORDERING INFORMATION



AXIAL
All Dimensions
in Inches (mm)



RADIAL
All Dimensions
in Inches (mm)



COG DIELECTRIC

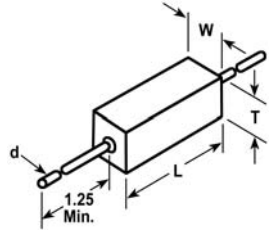
		AXIAL										RADIAL									
STYLE		16	25	39	50	69	05	06	07	08	09	05	06	07	08	09					
Cap	L _{MAX}	.170 (4.32)	.270 (6.86)	.400 (10.16)	.520 (13.21)	.720 (18.29)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)					
	W _{MAX}	.080 (2.03)	.100 (2.54)	.150 (3.81)	.265 (6.73)	.370 (9.40)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)					
	T _{MAX}	.080 (2.03)	.100 (2.54)	.150 (3.81)	.160 (4.06)	.160 (4.06)	.100 (2.54)	.100 (2.54)	.150 (3.81)	.100 (2.54)	.150 (3.81)	.100 (2.54)	.100 (2.54)	.150 (3.81)	.100 (2.54)	.150 (3.81)					
	s	---	---	---	---	---	.200 ± .015 (5.08 ± .38)	.200 ± .015 (5.08 ± .38)	.200 ± .015 (5.08 ± .38)	.400 ± .015 (10.16 ± .38)	.400 ± .015 (10.16 ± .38)	.200 ± .015 (5.08 ± .38)	.200 ± .015 (5.08 ± .38)	.200 ± .015 (5.08 ± .38)	.400 ± .015 (10.16 ± .38)	.400 ± .015 (10.16 ± .38)					
	d	.020 ± .002 (.508 ± .051)	.020 ± .002 (.508 ± .051)	.025 ± .002 (.635 ± .051)	.025 ± .002 (.635 ± .051)	.025 ± .002 (.635 ± .051)	.020 ± .002 (.508 ± .051)	.020 ± .002 (.508 ± .051)	.020 ± .002 (.508 ± .051)	.025 ± .002 (.635 ± .051)	.025 ± .002 (.635 ± .051)	.020 ± .002 (.508 ± .051)	.020 ± .002 (.508 ± .051)	.020 ± .002 (.508 ± .051)	.025 ± .002 (.635 ± .051)	.025 ± .002 (.635 ± .051)					
	Cap Code		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100			
	5.6pF	569																			
	6.8	689																			
	8.2	829																			
	10	100																			
	12	120																			
	15	150																			
	18	180																			
	22	220																			
	27	270																			
	33	330																			
	39	390																			
	47	470																			
	56	560																			
	68	680																			
	82	820																			
	100	101																			
	120	121																			
	150	151																			
	180	181																			
	220	221																			
	270	271																			
	330	331																			
	390	391																			
	470	471																			
	560	561																			
	680	681																			
	820	821																			
	1000	102																			
	1200	122																			
	1500	152																			
	1800	182																			
	2200	222																			
	2700	272																			
	3300	332																			
	3900	392																			
	4700	472																			
	5600	562																			
	6800	682																			
	8200	822																			
	0.01 μF	103																			
	0.012	123																			
	0.015	153																			
	0.018	183																			
	0.022	223																			
	0.027	273																			
	0.033	333																			
	0.039	393																			
	0.047	473																			
	0.056	563																			
	0.068	683																			
	0.082	823																			
	0.10	104																			
	0.12	124																			
	0.15	154																			

High Temperature Standard (+200°C) Axial and Radial Ceramic Cased Capacitors (C³)

ARR/ARA Series

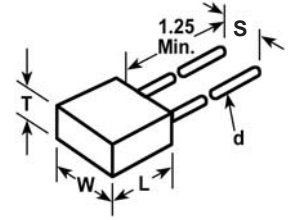
AXIAL

All Dimensions
in Inches (mm)



RADIAL

All Dimensions
in Inches (mm)



X7R DIELECTRIC

		AXIAL										RADIAL									
STYLE	Cap Code	16		25		39		50		69		05		06		07		08		09	
		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
L MAX		.170 (4.32) .270 (6.86) .400 (10.16) .520 (13.21) .720 (18.29) .200 (5.08) .300 (7.62) .300 (7.62) .500 (12.70) .500 (12.70)																			
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Cap Code		WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC WVDC																			
100pF	101																				
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	1.8																				
	2.2																				
	2.7																				
	3.3																				
	3.9																				