

# High Temperature Standard (+200°C) Axial and Radial Ceramic Cased Capacitors (C<sup>3</sup>) 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

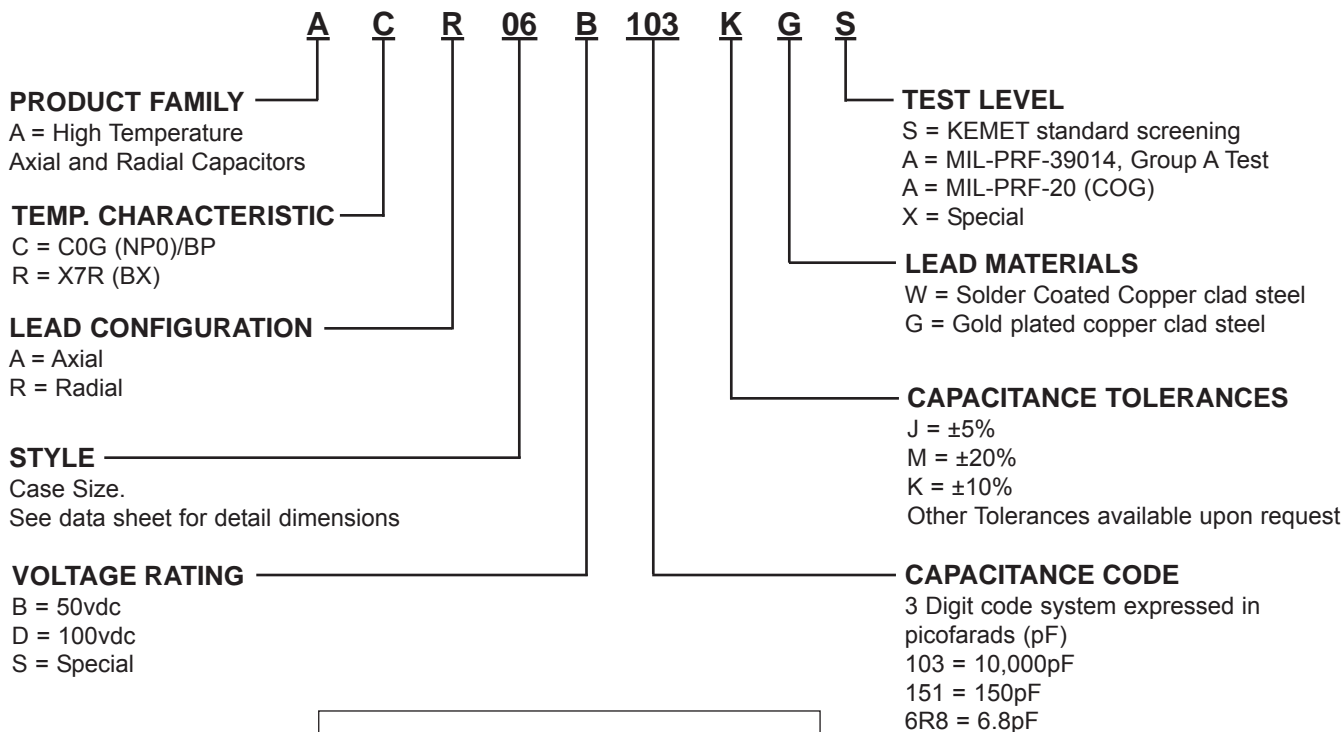
Specially formulated X7R ceramic materials result in a retention of 40% of the +25°C capacitance. Dissipation factor drops from 1.25% at +25°C to 0.1% at +200°C. At +120°C the ceramic undergoes a transformation (crystalline inversion) resulting in the material changing from ferroelectric to paraelectric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

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

## INSTALLATION:

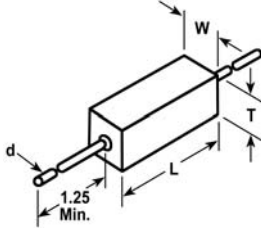
Parts should be soldered using a heat sink between the soldering point and the part using a soldering iron rated between 18-30 watts. Soldering temperature should not exceed +300°C.

## PART NUMBER AND ORDERING INFORMATION

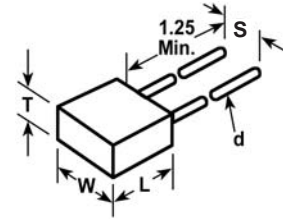


MARKING	
Manufacturer's ID	KEC
Capacitance	106J
Voltage	50V
Date Code	123

**AXIAL**  
All Dimensions  
in Inches (mm)



**RADIAL**  
All Dimensions  
in Inches (mm)



**COG DIELECTRIC**

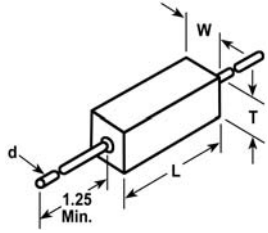
		AXIAL					RADIAL				
STYLE		16	25	39	50	69	05	06	07	08	09
Cap	L <sub>MAX</sub>	.170 (4.32)	.270 (6.86)	.400 (10.16)	.520 (13.21)	.720 (18.29)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)
	W <sub>MAX</sub>	.080 (2.03)	.100 (2.54)	.150 (3.81)	.265 (6.73)	.370 (9.40)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)
	T <sub>MAX</sub>	.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)
	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)
	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)
	Cap Code		WVDC 50 100	WVDC 50 100	WVDC 50 100	WVDC 50 100	WVDC 50 100	WVDC 50 100	WVDC 50 100	WVDC 50 100	WVDC 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 (C<sup>3</sup>)

## ARR/ARA Series

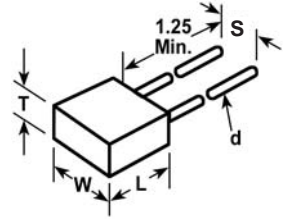
### AXIAL

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																					
W MAX																					
T MAX																					
s																					
d																					
Cap Code																					
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0.33	334																				
	394																				
0.47	474																				
	564																				
0.68	684																				
	824																				
1.0	105																				
	125																				
1.5	155																				
	185																				
2.2	225																				
	275																				
3.3	335																				
	395																				

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## KEMET:

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[ACR05B101KGS](#) [ACR05B150JGS](#) [ACR05B102KGS](#) [ACR05B470KGS](#) [ACR05A561JGS](#) [ACR05B271KGS](#)  
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[ACR05B331KGS](#) [ACR05B470JGS](#) [ACR06D103GGS](#)