

# 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

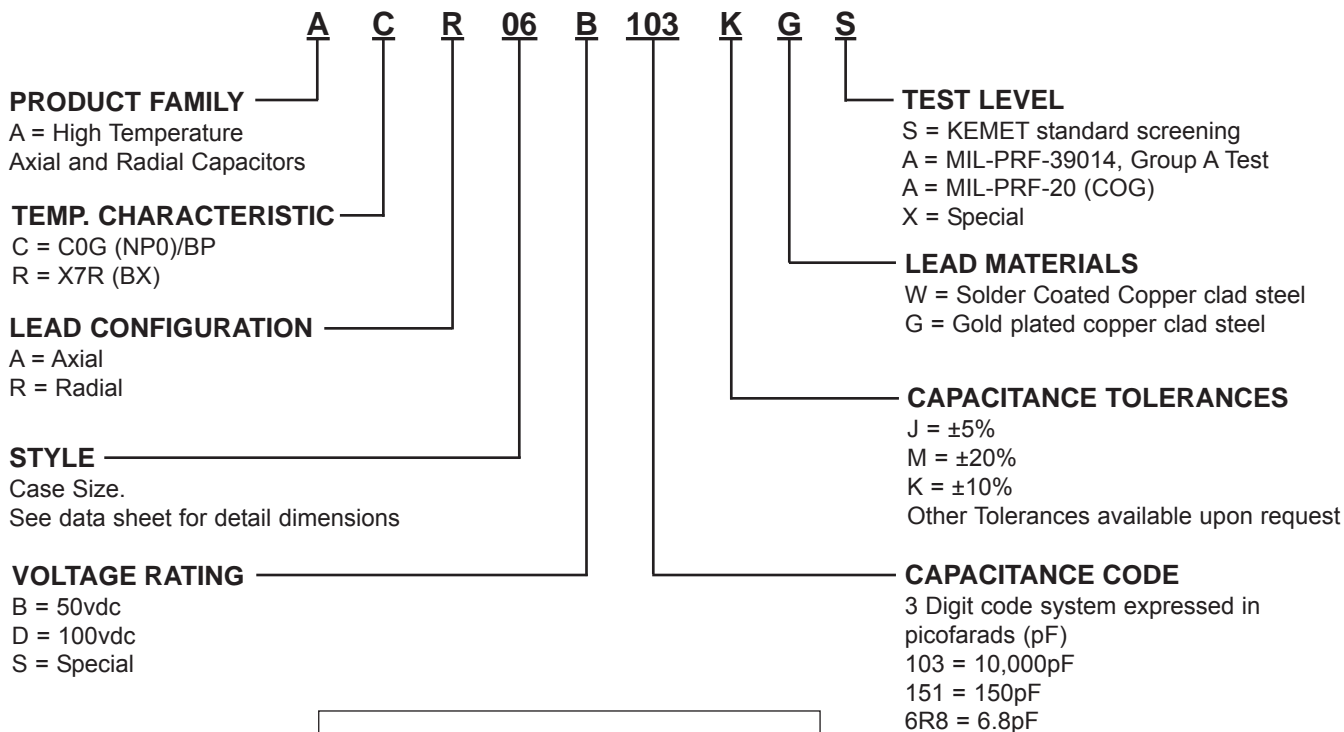
Specially formulated X7R ceramic materials result in a retention of 40% of the +25°C capacitance. Dissipation factor drops from 1.25% at +25°C to 0.1% at +200°C. At +120°C the ceramic undergoes a transformation (crystalline inversion) resulting in the material changing from ferroelectric to paraelectric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

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

## INSTALLATION:

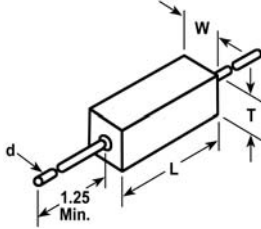
Parts should be soldered using a heat sink between the soldering point and the part using a soldering iron rated between 18-30 watts. Soldering temperature should not exceed +300°C.

## PART NUMBER AND ORDERING INFORMATION

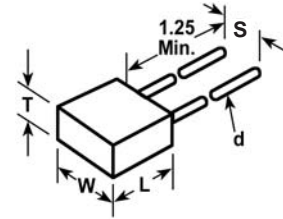


MARKING	
Manufacturer's ID	KEC
Capacitance	106J
Voltage	50V
Date Code	123

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



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



**COG DIELECTRIC**

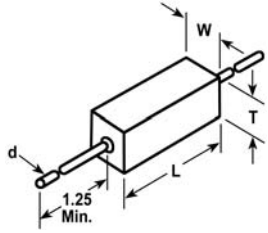
		AXIAL					RADIAL					
STYLE		16	25	39	50	69	05	06	07	08	09	
Cap	L <sub>MAX</sub>	.170 (4.32)	.270 (6.86)	.400 (10.16)	.520 (13.21)	.720 (18.29)	.200 (5.08)	.300 (7.62)	.300 (7.62)	.500 (12.70)	.500 (12.70)	
	W <sub>MAX</sub>	.080 (2.03)	.100 (2.54)	.150 (3.81)	.265 (6.73)	.370 (9.40)	.200 (5.08)	.300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

## ARR/ARA Series

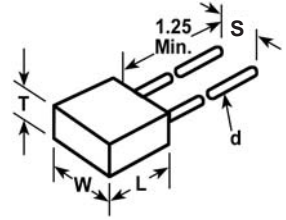
### AXIAL

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																					
100pF	101																				
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0.22	224																				
	274																				
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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