

# Radial Leads/SkyCap®/AR Series



## AUTOMOTIVE

### GENERAL INFORMATION

#### AVX AR Series

Conformally Coated Radial Ledged MLC

Temperature Coefficients: COG (NP0), X7R, X8R

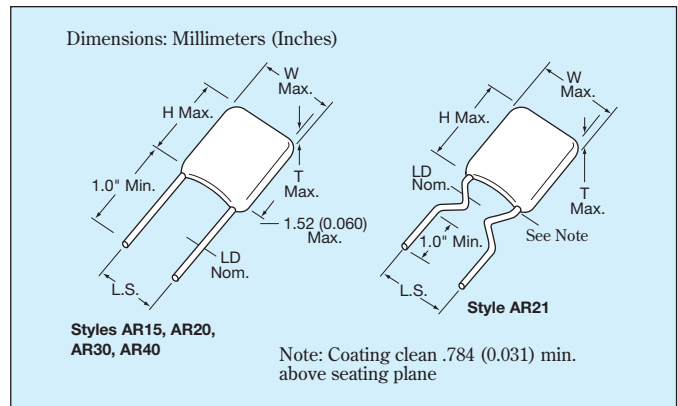
3000, 2000, 1000, 200, 100, 50 Volts

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

Temperature Range: up to 150°C



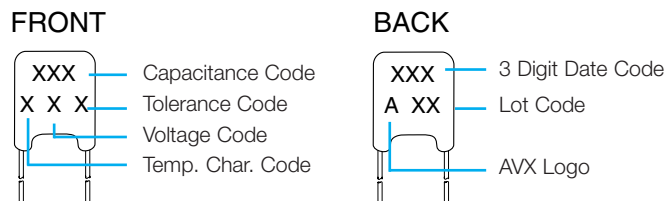
Drawings are for illustrative purposes only.  
Actual lead form shape could vary within stated tolerances based on body size.

### HOW TO ORDER

<b>AR21</b>	<b>5</b>	<b>F</b>	<b>104</b>	<b>M</b>	<b>4</b>	<b>R</b>	<b>TR1</b>
<b>AVX Style</b>	<b>Voltage</b>	<b>Temperature Coefficient</b>	<b>Capacitance</b>	<b>Capacitance Tolerance</b>	<b>Failure Rate</b>	<b>Leads</b>	<b>Packaging</b>
	5 = 50V 1 = 100V 2 = 200V A = 1000V G = 2000V H = 3000V	A = COG (NP0) C = X7R F = X8R	First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF)	COG (NP0): C = ±.25pF D = ±.5pF F = ±1% (>50pF only) G = ±2% (>25pF only) J = ±5% K = ±10%	X7R: J = ±5% K = ±10% M = ±20%  X8R: J = ±5% K = ±10% M = ±20%	4 = AEC-Q200	R = RoHS Long Lead 1.0" minimum  Blank = Bulk Packaging T = Trimmed Leads .230"± .030" Bulk packaging TR1 = Tape and Reel Packaging AP1 = Ammopack Packaging  See packaging specification page 33-34.



### MARKING



### PACKAGING REQUIREMENTS

	Quantity per Bag
AR15, 20, 21, 30	1000 Pieces
AR40	500 Pieces

Note: AR15, AR20, AR21, AR30, and AR40 available on tape and reel per EIA specifications RS-468. See pages 33 and 34.



# Radial Leads/AR Series

## C0G (NP0) Dielectric



### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic		Dimensions: Millimeters (Inches)								
AVX Style		AR15	AR20	AR21						
AVX "Insertable"		AR07	AR29	AR59						
Width (W)		3.81 (.150)	5.08 (.200)	5.08 (.200)						
Height (H)		3.81 (.150)	5.08 (.200)	5.08 (.200)						
Thickness (T)		2.54 (.100)	3.175 (.125)	3.175 (.125)						
Lead Spacing (L.S.)		2.54 (.100)	2.54 (.100)	5.08 (.200)						
Lead Diameter (L.D.)		.508 (.020)	.508 (.020)	.508 (.020)						
Cap in pF	Industry Preferred Values in Blue	WVDC			WVDC			WVDC		
		200	100	50	200	100	50	200	100	50
1	AR.....A1R0D4R									
<b>10</b>	<b>AR.....A100K4R</b>									
15	AR.....A150K4R									
22	AR.....A220K4R									
33	AR.....A330K4R									
39	AR.....A390K4R									
47	AR.....A470K4R									
68	AR.....A680K4R									
<b>100</b>	<b>AR.....A101K4R</b>									
150	AR.....A151K4R									
220	AR.....A221K4R									
330	AR.....A331K4R									
390	AR.....A391K4R									
470	AR.....A471K4R									
680	AR.....A681K4R									
<b>1,000</b>	<b>AR.....A102K4R</b>									
1,500	AR.....A152K4R									
2,200	AR.....A222K4R									
3,900	AR.....A392K4R									
<b>4,700</b>	<b>AR.....A472K4R</b>									
6800	AR.....A682K4R									
8200	AR.....A822K4R									

**Notes:**  
 "Insertable" make reference to alternative AVX style using the same range of capacitance available on the matrix.  
 For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.  
 Others capacitance values available upon special request.  
 Others styles available: AR12, AR14, AR62, AR89.

# Radial Leads/AR Series



## X7R Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic Dimensions: Millimeters (Inches)

	AVX Style	AR15	AR20	AR21	AR30	AR40
	AVX "Insertable"	AR07	AR29	AR59	AR65	AR75
Width (W)		3.81 (.150)	5.08 (.200)	5.08 (.200)	7.62 (.300)	10.16 (.400)
Height (H)		3.81 (.150)	5.08 (.200)	5.08 (.200)	7.62 (.300)	10.16 (.400)
Thickness (T)		2.54 (.100)	3.175 (.125)	3.175 (.125)	3.81 (.150)	3.81 (.150)
Lead Spacing (L.S.)		2.54 (.100)	2.54 (.100)	5.08 (.200)	5.08 (.200)	5.08 (.200)
Lead Diameter (L.D.)		.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)
Cap in pF	Industry Preferred Values in Blue	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50
470	AR....C471K4R					
<b>1000</b>	<b>AR....C102K4R</b>					
1500	AR....C152K4R					
2200	AR....C222K4R					
3300	AR....C332K4R					
4700	AR....C472K4R					
6800	AR....C682K4R					
<b>10,000</b>	<b>AR....C103K4R</b>					
15,000	AR....C153K4R					
22,000	AR....C223K4R					
33,000	AR....C333K4R					
47,000	AR....C473K4R					
68,000	AR....C683K4R					
<b>100,000</b>	<b>AR....C104K4R</b>					
150,000	AR....C154K4R					
220,000	AR....C224K4R					
330,000	AR....C334K4R					
390,000	AR....C394K4R					
470,000	AR....C474K4R					
680,000	AR....C684K4R					
<b>1.0 uF</b>	<b>AR....C105K4R</b>					
4,700,000	AR....C475K4R					
6,800,000	AR....C685K4R					
<b>10.0 uF</b>	<b>AR....C106K4R</b>					

= Extended range with 0.150" thickness maximum

**Notes:**

"Insertable" make reference to alternative AVX style using the same range of capacitance available on the matrix.

For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.

Others capacitance values available upon special request.

Others styles available: AR12, AR14, AR62, AR89, AR32, AR38.



# Radial Leads/AR Series

## X8R Dielectric



### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic		Dimensions: Millimeters (Inches)					
AVX Style		AR20		AR21			
AVX "Insertable"		AR29		AR59			
<b>Width (W)</b>		5.08 (.200)		5.08 (.200)			
<b>Height (H)</b>		5.08 (.200)		5.08 (.200)			
<b>Thickness (T)</b>		3.175 (.125)		3.175 (.125)			
<b>Lead Spacing (L.S.)</b>		2.54 (.100)		5.08 (.200)			
<b>Lead Diameter (L.D.)</b>		.508 (.020)		.508 (.020)			
Cap in pF	Industry Preferred Values in Blue	WVDC			WVDC		
		200	100	50	200	100	50
1,000	AR.....F102K4R						
10,000	AR.....F103K4R						
100,000	AR.....F104K4R						
330,000	AR.....F334K4R						

**Notes:**  
 "Insertable" make reference to alternative AVX style using the same range of capacitance available on the matrix.  
 For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.  
 Others capacitance values available upon special request.  
 Others styles available: AR14, AR62, AR89.

# High Voltage Automotive Product SkyCap Capacitors



## X7R Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic Dimensions: Millimeters (Inches)

	AVX Style	AR20	AR21	AR22	AR27	AR30
	AVX "Insertable"	AR29	AR59	N/A	N/A	AR65
Cap in pF	Industry Preferred Values in Blue	WVDC 1000	WVDC 1000	WVDC 1000	WVDC 1000	WVDC 2000 3000
470	AR.....C471K4R					
<b>1000</b>	<b>AR.....C102K4R</b>					
1500	AR.....C152K4R					
2200	AR.....C222K4R					
3300	AR.....C332K4R					
4700	AR.....C472K4R					
6800	AR.....C682K4R					
<b>10,000</b>	<b>AR.....C103K4R</b>					
15,000	AR.....C153K4R					
22,000	AR.....C223K4R					
47,000	AR.....C473K4R					
68,000	AR.....C683K4R					

For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.

