

## GENERAL INFORMATION

### AVX SR Series

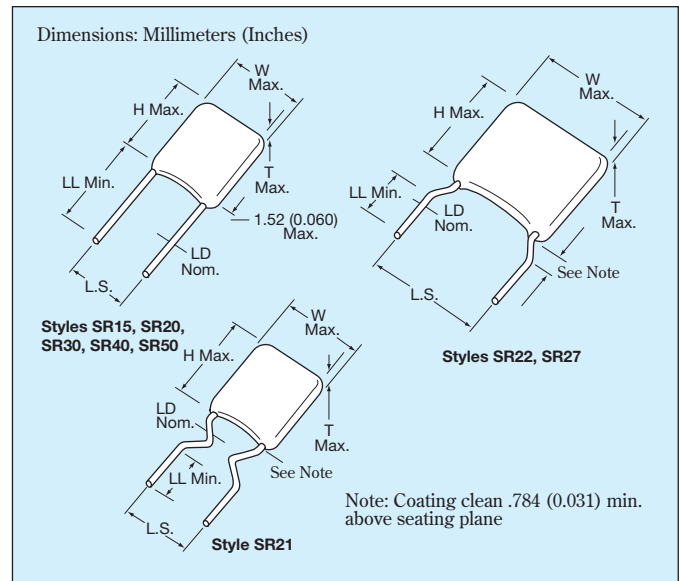
Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

200, 100, 50 Volts (300V, 400V & 500V also available)

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin



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

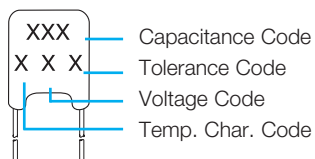
## HOW TO ORDER

SR21	5	E	104	M	A	R	TR1
<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>
SR15 SR20 SR21 SR22 SR27 SR30 SR40 SR50	5 = 50V 1 = 100V 2 = 200V 9 = 300V 8 = 400V 7 = 500V	A = C0G (NP0) C = X7R E = Z5U	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.)	C0G (NP0): C = ±.25pF D = ±.5pF F = ±1% (>50pF only) G = ±2% (>25pF only) J = ±5% K = ±10%	X7R: J = ±5% K = ±10% M = ±20% Z5U: M = ±20% Z = +80% -20%	A = Not Applicable R = RoHS	Blank: Bulk Packaging 1.0" minimum of lead length T: Trimmed leads .230" ± .030" Bulk packaging TR1: Tape and Reel Packaging AP1: Ammopack packaging  See packaging specification pages 33-34

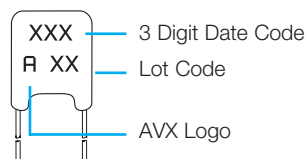


## MARKING

### FRONT



### BACK



## PACKAGING REQUIREMENTS

	Quantity per Bag
SR15, 20, 21, 22, 27, 30	1000 Pieces
SR40, 50	500 Pieces

Note: SR15, SR20, SR21, SR30, and SR40 available on tape and reel per EIA specifications RS-468. See Pages 33 and 34.

# Radial Leads/SkyCap®/SR Series



## C0G (NP0) Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

AVX Style	SR15	SR20	SR21	SR22	SR27	SR30	SR40	SR50											
AVX "Insertable"	SR07	SR29	SR59	N/A	N/A	SR65	SR75	N/A											
<b>Width (W)</b>	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.604 (.260)	7.62 (.300)	10.16 (.400)	12.70 (.500)											
<b>Height (H)</b>	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.35 (.250)	7.62 (.300)	10.16 (.400)	12.70 (.500)											
<b>Thickness (T)</b>	2.54 (.100)	3.175 (.125)	3.175 (.125)	3.175 (.125)	4.06 (.160)	3.81 (.150)	3.81 (.150)	5.08 (.200)											
<b>Lead Spacing (L.S.)</b>	2.54 (.100)	2.54 (.100)	5.08 (.200)	6.35 (.250)	7.62 (.300)	5.08 (.200)	5.08 (.200)	10.16 (.400)											
<b>Lead Diameter (L.D.)</b>	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.635 (.025)											
<b>Cap. in.* Industry Preferred pF</b>	<b>WVDC</b>		<b>WVDC</b>			<b>WVDC</b>			<b>WVDC</b>		<b>WVDC</b>		<b>WVDC</b>		<b>WVDC</b>		<b>WVDC</b>		
<b>Values in Blue</b>	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50	100	50	100	50
1.0-9.9 <b>10</b> 15	SR151A1R0DAR <b>SR151A100KAR</b> SR.....A150KAR																		
22 33 39	SR.....A220KAR SR.....A330KAR SR.....A390KAR																		
47 68 <b>100</b>	SR.....A470KAR SR.....A680KAR <b>SR151A101KAR</b>																		
150 220 330	SR.....A151KAR SR.....A221KAR SR.....A331KAR																		
390 470 680	SR.....A391KAR SR.....A471KAR SR.....A681KAR																		
<b>1000</b> 1500 2200	<b>SR211A102KAR</b> SR.....A152KAR SR.....A222KAR																		
3900 4700 6800	SR.....A392KAR SR.....A472KAR SR.....A682KAR																		
8200 <b>10,000</b> 15,000	SR.....A822KAR <b>SR305A103KAR</b> SR.....A153KAR																		
22,000 33,000 39,000	SR.....A223KAR SR.....A333KAR SR.....A393KAR																		
47,000 68,000 100,000	SR.....A473KAR SR.....A683KAR SR.....A104KAR																		

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

\*Other capacitance values available upon special request.

 = Industry preferred values  
 = SR20 only

Capacitance ranges available for SR12 and SR07 same as SR15  
 SR62 and SR59 same as SR21  
 SR64 and SR65 same as SR30  
 SR75 same as SR40  
 SR13 same as SR21

**NOTE:** For others voltages, tolerances, electrical specifications and NPO typical characteristics, see the AVX Multilayer Ceramic Leaded Capacitors Catalog.

# Radial Leads/SkyCap®/SR Series



## X7R Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

AVX Style	SR15	SR20	SR21	SR22	SR27	SR30	SR40	SR50														
AVX "Insertable"	SR07	SR29	SR59	N/A	N/A	SR65	SR75	N/A														
<b>Width (W)</b>	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.604 (.260)	7.62 (.300)	10.16 (.400)	12.70 (.500)														
<b>Height (H)</b>	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.35 (.250)	7.62 (.300)	10.16 (.400)	12.70 (.500)														
<b>Thickness (T)</b>	2.54 (.100)	3.175 (.125)	3.175 (.125)	3.175 (.125)	4.06 (.160)	3.81 (.150)	3.81 (.150)	5.08 (.200)														
<b>Lead Spacing (L.S.)</b>	2.54 (.100)	2.54 (.100)	5.08 (.200)	6.35 (.250)	7.62 (.300)	5.08 (.200)	5.08 (.200)	10.16 (.400)														
<b>Lead Diameter (L.D.)</b>	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.635 (.025)														
<b>Cap. in.* Industry Preferred Values in Blue</b>	<b>WVDC</b>			<b>WVDC</b>			<b>WVDC</b>			<b>WVDC</b>			<b>WVDC</b>			<b>WVDC</b>			<b>WVDC</b>			
	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50	
470 pF SR.....C471KAR																						
<b>1000 pF SR155C102KAR</b>																						
1500 pF SR.....C152KAR																						
2200 pF SR.....C222KAR																						
3300 pF SR.....C332KAR																						
4700 pF SR.....C472KAR																						
6800 pF SR.....C682KAR																						
<b>10,000 pF SR215C103KAR</b>																						
15,000 pF SR.....C153KAR																						
22,000 pF SR.....C223KAR																						
33,000 pF SR.....C333KAR																						
47,000 pF SR.....C473KAR																						
68,000 pF SR.....C683KAR																						
<b>100,000 pF SR215C104KAR</b>																						
150,000 pF SR.....C154KAR																						
<b>220,000 pF SR215C224KAR</b>																						
330,000 pF SR.....C334KAR																						
390,000 pF SR.....C394KAR																						
<b>470,000 pF SR305C474KAR</b>																						
<b>1.0 uF SR305C105KAR</b>																						
2.2 uF SR405C225KAR																						
2.7 uF SR505C275KAR																						
4.7 uF SR505C475KAR																						
10.0 uF SR655C106KAR																						

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

- = Industry preferred values
- = Extended range
- = Extended range with 0.150" thickness maximum

# Radial Leads/SkyCap®/SR Series



## Z5U Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

AVX Style	SR15	SR20	SR21	SR22	SR27	SR30	SR40	SR50
AVX "Insertable"	SR07	SR29	SR59	N/A	N/A	SR65	SR75	N/A
<b>Width (W)</b>	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.604 (.260)	7.62 (.300)	10.16 (.400)	12.70 (.500)
<b>Height (H)</b>	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.35 (.250)	7.62 (.300)	10.16 (.400)	12.70 (.500)
<b>Thickness (T)</b>	2.54 (.100)	3.175 (.125)	3.175 (.125)	3.175 (.125)	4.06 (.160)	3.81 (.150)	3.81 (.150)	5.08 (.200)
<b>Lead Spacing (L.S.)</b>	2.54 (.100)	2.54 (.100)	5.08 (.200)	6.35 (.250)	7.62 (.300)	5.08 (.200)	5.08 (.200)	10.16 (.400)
<b>Lead Diameter (L.D.)</b>	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.635 (.025)
<b>Cap. in.* Industry Preferred Values in Blue</b>	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50
<b>10,000</b> SR15E103ZAR	Industry preferred							
<b>47,000</b> SR.....E473ZAR	Industry preferred							
<b>100,000</b> SR215E104ZAR		Industry preferred	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>150,000</b> SR.....E154ZAR		Industry preferred	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>220,000</b> SR215E224ZAR		Industry preferred	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>330,000</b> SR215E334ZAR		Industry preferred	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>470,000</b> SR215E474ZAR		Industry preferred	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>680,000</b> SR.....E684ZAR		Industry preferred	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>1.0 µF</b> SR.....105ZAR		SR20 only	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>1.5 µF</b> SR30E155ZAR		SR20 only	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>2.2 µF</b> SR30E225ZAR		SR20 only	Industry preferred	Industry preferred	Industry preferred	Industry preferred		
<b>3.3 µF</b> SR30E335ZAR								
<b>4.7 µF</b> SR30E475ZAR								

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

\*Other capacitance values available upon special request.

- = Industry preferred values
- = SR20 only

Capacitance ranges available for SR12 and SR07 same as SR15  
 SR62 and SR59 same as SR21  
 SR64 and SR65 same as SR30  
 SR75 same as SR40  
 SR13 same as SR21

**NOTE:** For others voltages, tolerances, electrical specifications and NPO typical characteristics, see the AVX Multilayer Ceramic Leaded Capacitors Catalog.

### AVX 500 VOLT SKYCAPS\*\*

STYLE*	MAXIMUM CAPACITANCE VALUE	
	C0G (NPO)	X7R
SR29	900 pF	.015 µF
SR20	1800 pF	.033 µF
SR28 SR59	900 pF	.015 µF
SR13 SR21	1800 pF	.033 µF
SR30 SR61 SR65	7200 pF	.12 µF
SR40 SR75	.015 µF	.27 µF
SR22	1800 pF	.033 µF
SR27	1800 pF	.033 µF
SR76	.015 µF	.27 µF
SR50	.036 µF	.59 µF

\*Consult pages 27 and 28 for style sizes.

\*\*Voltage rating based on DWV of 150% of rated voltage.