

GENERAL INFORMATION

AVX SR Series

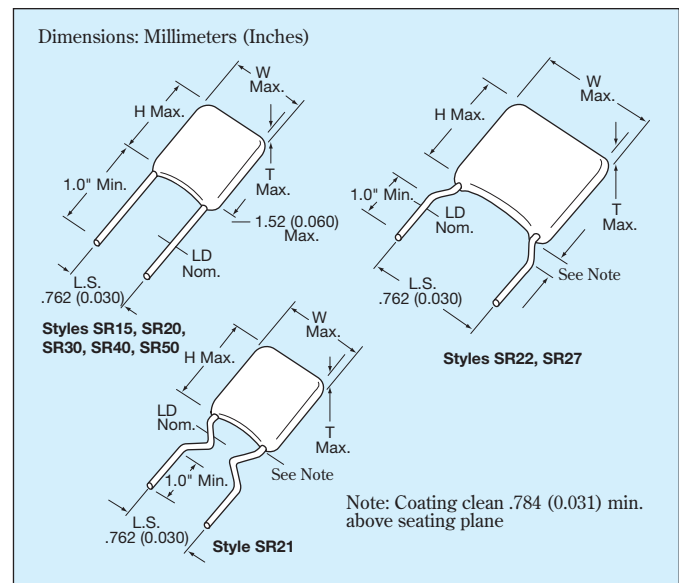
Conformally Coated Radial Ledged MLC

Temperature Coefficients: COG (NP0), X7R, Z5U

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

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

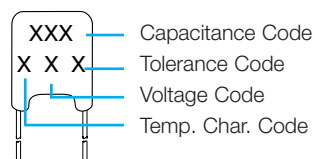


HOW TO ORDER

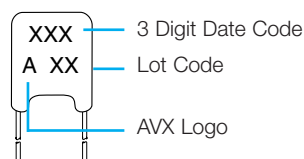
SR21	5	E	104	M	A	R	TR1
AVX Style	Voltage	Temperature Coefficient	Capacitance	Capacitance Tolerance	Failure Rate	Leads	Packaging
SR15 SR20 SR21 SR22 SR27 SR30 SR40 SR50	5 = 50V 1 = 100V 2 = 200V 9 = 300V 8 = 400V 7 = 500V	A = COG (NP0) C = X7R E = Z5U	First two digits are the significant figures of capacitance. 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)	COG (NP0): C = $\pm 0.25\mu\text{F}$ D = $\pm 0.5\mu\text{F}$ F = $\pm 1\%$ ($>50\mu\text{F}$ only) G = $\pm 2\%$ ($>25\mu\text{F}$ only) J = $\pm 5\%$ K = $\pm 10\%$	X7R: J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$ Z5U: M = $\pm 20\%$ Z = $\pm 80\%$ -20%	R = RoHS Long Lead 1.0" minimum	Blank = Bulk Packaging T = Trimmed Leads .230" $\pm$.030" Bulk packaging TR1 = Tape and Reel Packaging AP1 = Ammopack Packaging See packaging specification page 34-35.

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 34 and 35.



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		
Width (W)		3.81 (.150)			5.08 (.200)			5.08 (.200)			5.08 (.200)			6.604 (.260)			7.62 (.300)			10.16 (.400)			12.70 (.500)		
Height (H)		3.81 (.150)			5.08 (.200)			5.08 (.200)			5.08 (.200)			6.35 (.250)			7.62 (.300)			10.16 (.400)			12.70 (.500)		
Thickness (T)		2.54 (.100)			3.175 (.125)			3.175 (.125)			3.175 (.125)			4.06 (.160)			3.81 (.150)			3.81 (.150)			5.08 (.200)		
Lead Spacing (L.S.)		2.54 (.100)			2.54 (.100)			5.08 (.200)			6.35 (.250)			7.62 (.300)			5.08 (.200)			5.08 (.200)			10.16 (.400)		
Lead Diameter (L.D.)		.508 (.020)			.508 (.020)			.508 (.020)			.508 (.020)			.508 (.020)			.508 (.020)			.508 (.020)			.635 (.025)		
Cap. in.* Industry Preferred pF Values in Blue		WVDC 200 100 50			WVDC 200 100 50			WVDC 200 100 50			WVDC 200 100 50			WVDC 200 100 50			WVDC 100 50			WVDC 100 50			WVDC 100 50		
1.0-9.9 10 15	SR151A1R0DAR SR151A100KAR SR.....A150KAR																								
22 33 39	SR.....A220KAR SR.....A330KAR SR.....A390KAR																								
47 68 100	SR.....A470KAR SR.....A680KAR SR151A101KAR																								
150 220 330	SR.....A151KAR SR.....A221KAR SR.....A331KAR																								
390 470 680	SR.....A391KAR SR.....A471KAR SR.....A681KAR																								
1000 1500 2200	SR211A102KAR SR.....A152KAR SR.....A222KAR																								
3900 4700 6800	SR.....A392KAR SR.....A472KAR SR.....A682KAR																								
8200 10,000 15,000	SR.....A822KAR SR305A103KAR 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												
Width (W)	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.604 (.260)	7.62 (.300)	10.16 (.400)	12.70 (.500)												
Height (H)	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.35 (.250)	7.62 (.300)	10.16 (.400)	12.70 (.500)												
Thickness (T)	2.54 (.100)	3.175 (.125)	3.175 (.125)	3.175 (.125)	4.06 (.160)	3.81 (.150)	3.81 (.150)	5.08 (.200)												
Lead Spacing (L.S.)	2.54 (.100)	2.54 (.100)	5.08 (.200)	6.35 (.250)	7.62 (.300)	5.08 (.200)	5.08 (.200)	10.16 (.400)												
Lead Diameter (L.D.)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.635 (.025)												
Cap. in.* pF	Industry Preferred Values in Blue	WVDC			WVDC		WVDC			WVDC		WVDC			WVDC					
		200	100	50	200	100	50	200	100	50	100	50	100	50	200	100	50	200	100	50
470	SR.....C471KAA																			
1000	SR155C102KAA																			
1500	SR.....C152KAA																			
2200	SR.....C222KAA																			
3300	SR.....C332KAA																			
4700	SR.....C472KAA																			
6800	SR.....C682KAA																			
10,000	SR215C103KAA																			
15,000	SR.....C153KAA																			
22,000	SR.....C223KAA																			
33,000	SR.....C333KAA																			
47,000	SR.....C473KAA																			
68,000	SR.....C683KAA																			
100,000	SR215C104KAA																			
150,000	SR.....C154KAA																			
220,000	SR215C224KAA																			
330,000	SR.....C334KAA																			
390,000	SR.....C394KAA																			
470,000	SR305C474KAA																			
1.0 uF	SR305C105KAA																			
2.2 uF	SR405C225KAA																			
2.7 uF	SR505C275KAA																			
4.7 uF	SR505C475KAA																			
10.0 uF	SR655C106KAA																			

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
Width (W)	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.604 (.260)	7.62 (.300)	10.16 (.400)	12.70 (.500)
Height (H)	3.81 (.150)	5.08 (.200)	5.08 (.200)	5.08 (.200)	6.35 (.250)	7.62 (.300)	10.16 (.400)	12.70 (.500)
Thickness (T)	2.54 (.100)	3.175 (.125)	3.175 (.125)	3.175 (.125)	4.06 (.160)	3.81 (.150)	3.81 (.150)	5.08 (.200)
Lead Spacing (L.S.)	2.54 (.100)	2.54 (.100)	5.08 (.200)	6.35 (.250)	7.62 (.300)	5.08 (.200)	5.08 (.200)	10.16 (.400)
Lead Diameter (L.D.)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.635 (.025)
Cap. in.* Industry Preferred pF Values in Blue	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50	WVDC 100 50
10,000 SR15E103ZAR								
47,000 SR.....E473ZAR								
100,000 SR215E104ZAR								
150,000 SR.....E154ZAR								
220,000 SR215E224ZAR								
330,000 SR215E334ZAR								
470,000 SR215E474ZAR								
680,000 SR.....E684ZAR								
1.0 µF SR.....105ZAR								
1.5 µF SR30E155ZAR								
2.2 µF SR30E225ZAR								
3.3 µF SR30E335ZAR								
4.7 µF 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 (NP0)	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 28 and 29 for style sizes.

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