

## GENERAL INFORMATION

### AVX SR Series

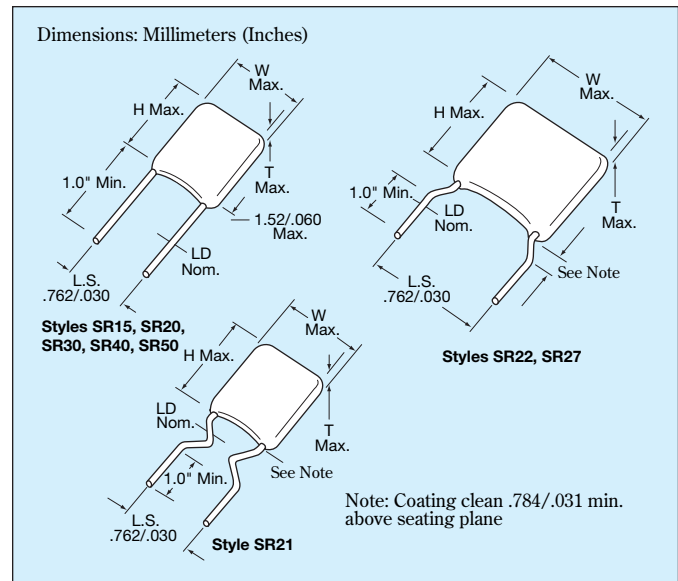
Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

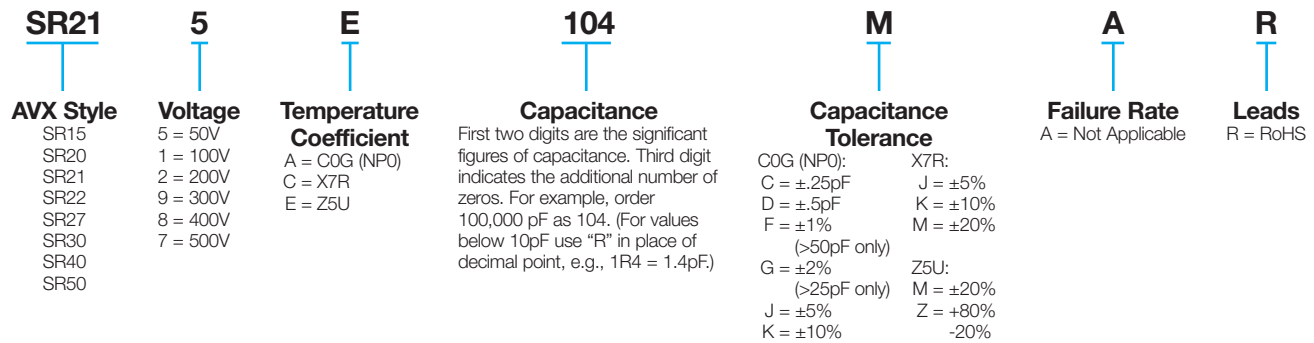
200, 100, 50 Volts (300V, 400V & 500V also available)

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

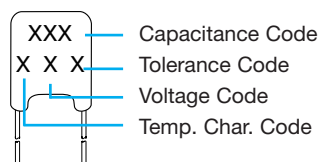


## HOW TO ORDER

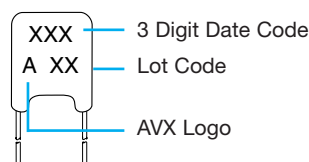


## MARKING

### 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 Values in Blue</b>	<b>WVDC</b> 200 100 50	<b>WVDC</b> 200 100 50	<b>WVDC</b> 200 100 50	<b>WVDC</b> 200 100 50	<b>WVDC</b> 200 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 100 50	<b>WVDC</b> 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

**NOTE:** Capacitance Ranges available for SR12 same as SR15  
 SR62 same as SR21  
 SR64 same as SR30  
 SR89 same as SR21



# 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>		<b>WVDC</b>		<b>WVDC</b>		
	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50	
470	SR.....C471KAR																		
<b>1000</b>	<b>SR155C102KAR</b>																		
1500	SR.....C152KAR																		
2200	SR.....C222KAR																		
3300	SR.....C332KAR																		
4700	SR.....C472KAR																		
6800	SR.....C682KAR																		
<b>10,000</b>	<b>SR215C103KAR</b>																		
15,000	SR.....C153KAR																		
22,000	SR.....C223KAR																		
33,000	SR.....C333KAR																		
47,000	SR.....C473KAR																		
68,000	SR.....C683KAR																		
<b>100,000</b>	<b>SR215C104KAR</b>																		
150,000	SR.....C154KAR																		
<b>220,000</b>	<b>SR215C224KAR</b>																		
330,000	SR.....C334KAR																		
390,000	SR.....C394KAR																		
<b>470,000</b>	<b>SR305C474KAR</b>																		
<b>1.0 µF</b>	<b>SR305C105KAR</b>																		
2.2 µF	SR405C225KAR																		
2.7 µF	SR505C275KAR																		
4.7 µF	SR505C475KAR																		

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
- = Extended range
- = Extended range, SR20 only
- = Extended range with 0.150" thickness maximum

**NOTE:** Capacitance Ranges available for SR12 same as SR15  
 SR62 same as SR21  
 SR64 same as SR30  
 SR89 same as SR21



# 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 47,000 100,000	SR15E103ZAR SR.....E473ZAR SR215E104ZAR							
150,000 220,000 330,000	SR.....E154ZAR SR215E224ZAR SR215E334ZAR							
470,000 680,000	SR215E474ZAR SR.....E684ZAR							
1.0 µF 1.5 µF 2.2 µF	SR.....105ZAR SR30E155ZAR SR30E225ZAR							
3.3 µF 4.7 µF	SR30E335ZAR 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

### AVX 500 VOLT SKYCAPS\*\*

STYLE*	MAXIMUM CAPACITANCE VALUE	
	COG (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 27 and 28 for style sizes.

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



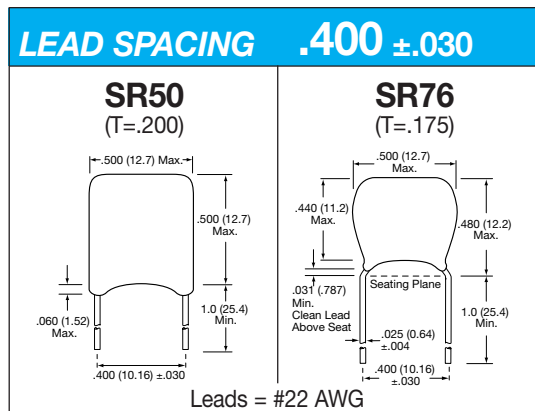
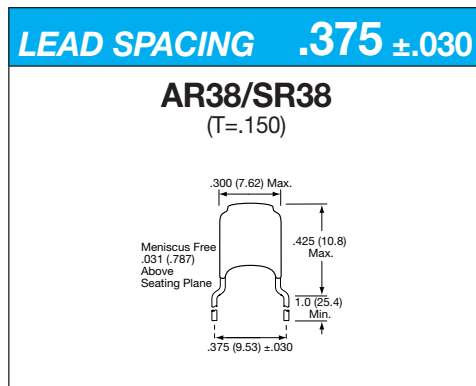
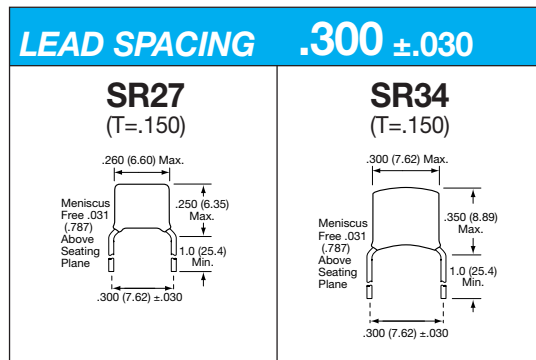
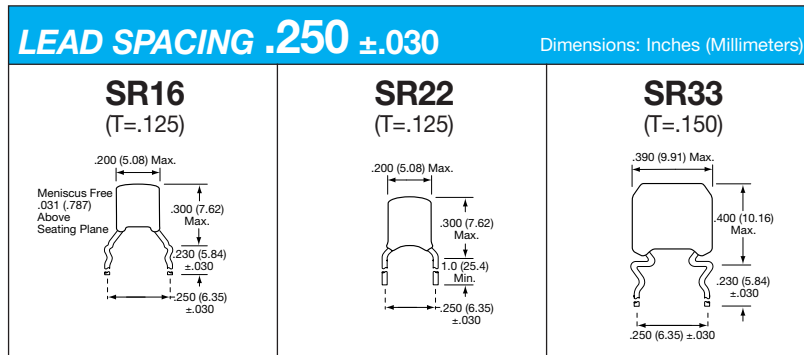
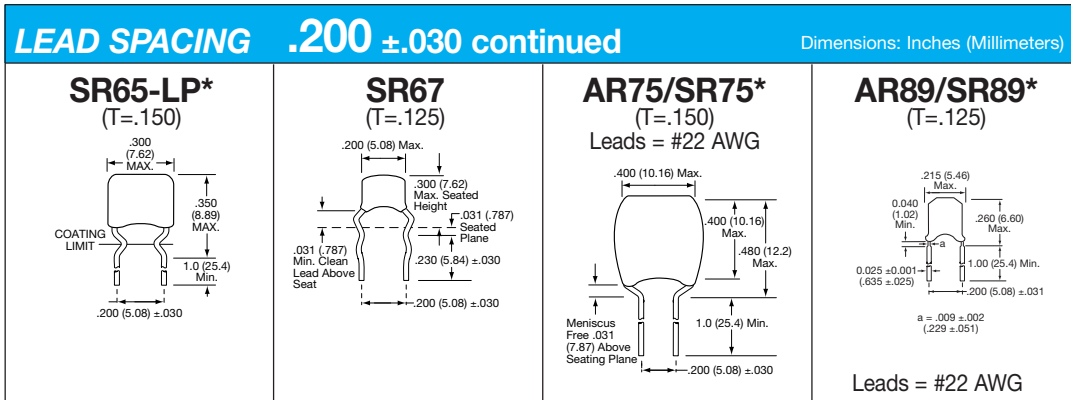
## Configurations by Lead Spacing

LEAD SPACING <b>.100 ±.030</b>				Dimensions: Inches (Millimeters)			
<p><b>AR07/SR07*</b> (T=.100)</p>	<p><b>AR14/SR14</b> (T=.100)</p>	<p><b>AR15/SR15*</b> (T=.100)</p>	<p><b>AR20/SR20*</b> (T=.125)</p>	<p><b>AR29/SR29*</b> (T=.125)</p>	<p><b>AR62/SR62*</b> (T=.125)</p> <p>Leads = #22 AWG</p>	<p><b>SR62-LP*</b> (T=.100)</p> <p>Leads = #22 AWG</p>	

LEAD SPACING <b>.200 ±.030</b>					Dimensions: Inches (Millimeters)									
<p><b>AR12/SR12*</b> (T=.100)</p>	<p><b>SR13*</b> (T=.125)</p>	<p><b>AR21/SR21*</b> (T=.125)</p>	<p><b>SR21-85*</b> (T=.125)</p>	<p><b>SR28*</b> (T=.125)</p>	<p><b>AR30/SR30*</b> (T=.150)</p>	<p><b>SR30-LP*</b> (T=.150)</p>	<p><b>AR32/SR32*</b> (T=.150)</p>	<p><b>AR40/SR40*</b> (T=.150)</p>	<p><b>AR59/SR59*</b> (T=.125)</p>	<p><b>SR61</b> (T=.150)</p>	<p><b>SR63*</b> (T=.150)</p>	<p><b>SR64*</b> (T=.150)</p> <p>Leads = #22 AWG</p>	<p><b>SR64-LP*</b> (T=.150)</p> <p>Leads = #22 AWG</p>	<p><b>AR65/SR65*</b> (T=.150)</p>
<p><b>AR30/SR30*</b> (T=.150)</p>	<p><b>SR30-LP*</b> (T=.150)</p>	<p><b>AR32/SR32*</b> (T=.150)</p>	<p><b>AR40/SR40*</b> (T=.150)</p>	<p><b>AR59/SR59*</b> (T=.125)</p>	<p><b>SR61</b> (T=.150)</p>	<p><b>SR63*</b> (T=.150)</p>	<p><b>SR64*</b> (T=.150)</p> <p>Leads = #22 AWG</p>	<p><b>SR64-LP*</b> (T=.150)</p> <p>Leads = #22 AWG</p>	<p><b>AR65/SR65*</b> (T=.150)</p>					
<p><b>SR61</b> (T=.150)</p>	<p><b>SR63*</b> (T=.150)</p>	<p><b>SR64*</b> (T=.150)</p> <p>Leads = #22 AWG</p>	<p><b>SR64-LP*</b> (T=.150)</p> <p>Leads = #22 AWG</p>	<p><b>AR65/SR65*</b> (T=.150)</p>										

\*SL style available in all SR configurations.

## Configurations by Lead Spacing



- NOTES:**
1. All leads are #24 AWG unless otherwise noted.
  2. Available in tape and reel packaging(\*).
  3. Other styles are also available, contact factory.
  4. (T = XXX) under type designation is maximum thickness in inches.

\*SL style available in all SR configurations.

# Radial Leads/Packaging

## Tape and Reel



### GENERAL INFORMATION

1. Standard reel diameter is 355 millimeters (14 inches) maximum.
2. Reeling standard (#1 or #2) should be specified when ordering.

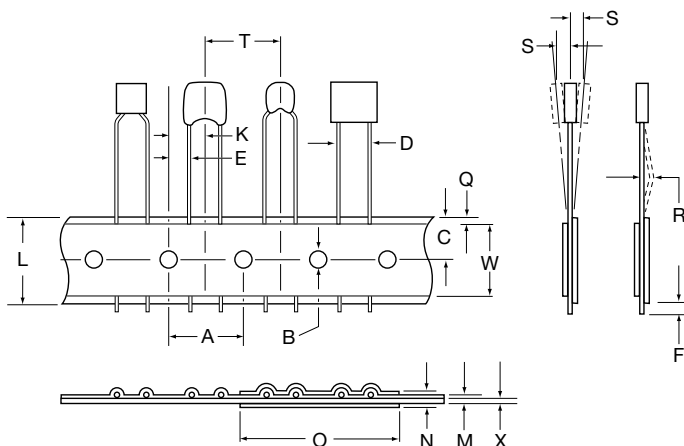
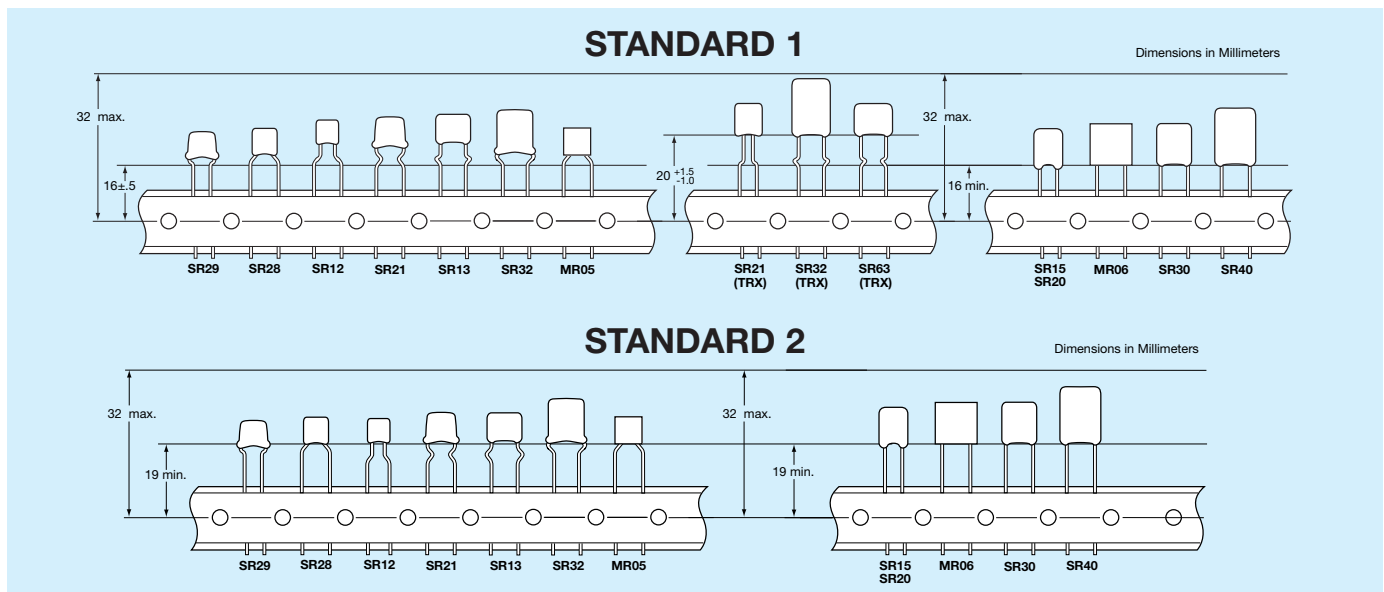
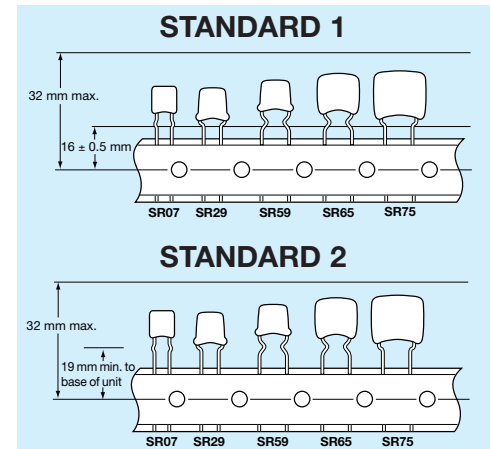
### HOW TO ORDER

To specify tape and reel packaging, add TR1, TR2 or TRX to the end of the AVX 12 digit part number.

Examples:

SR215C104KARTR1  
SR305E105MARTR2  
SR215C103JARTRX

### THE INSERTABLES

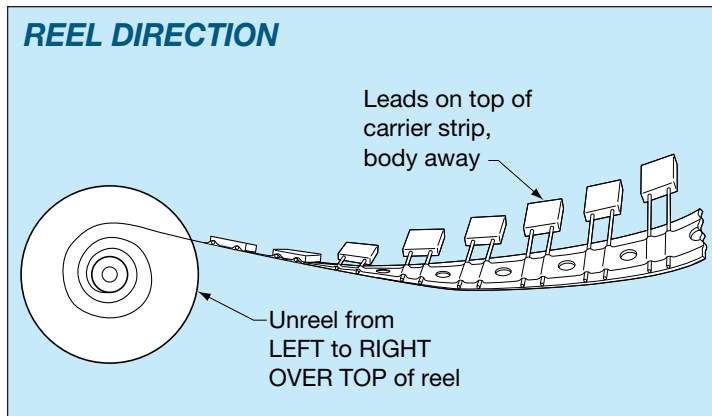


### DESCRIPTION

### DIMENSIONS (MM)

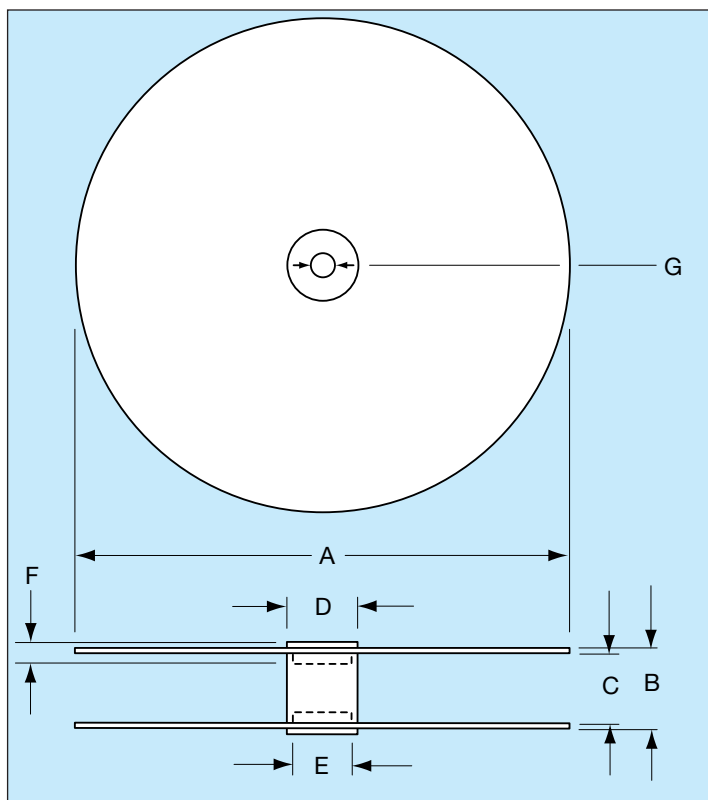
A. Feed Hole Pitch	12.70 ± .20
B. Feed Hole Diameter	3.99 ± .20
C. Feed Hole Location	9.02 ± .51
D. Component Lead Spacing	5.00 <sup>+0.79</sup> <sub>-.20</sub> or 2.54 <sup>+0.79</sup> <sub>-.20</sub>
E. Component Lead Location	3.81 ± .51 or 5.00 ± .51 for 2.54 lead spacing 2.00 maximum
F. Component Lead Protrusion (edge of carrier to cut end of lead)	2.00 maximum
K. Component Body Location	6.35 ± .41
L. Carrier Tape Width	18.01 <sup>+1.02</sup> <sub>-.51</sub>
M. Carrier Tape Assembly Thickness	.71 ± .20
N. Carrier Tape Spliced Thickness	1.42 maximum
O. Carrier Tape Spliced Length	50.80 - 88.90
Q. Adhesive Tape Border	3.00 maximum
R. Component Bent Leads (either direction)	.79 maximum
S. Component Misalignment	.99 maximum
T. Component Pitch	12.70 ± .99
W. Adhesive Tape Width	5.00 minimum
X. Carrier Tape Thickness	.51 ± .10
Y. Cumulative Pitch over 20 Pitches	254 ± 2.00





QUANTITY PER REEL SR/AR	
PART	PCS
SR15, 07, 12	3500
SR20, 21, 23, 28 13, 29, 59, 62, 89	3000
SR30, 32, 40, 63, 64 65, 75	2000
MR05, 06	2500

\*SL style available in all SR configurations.



DESCRIPTION	DIMENSIONS (MM)
A – Reel Diameter	304.80 - 355
B – Reel Outside Width	50.80 maximum
C – Reel Inside Width	38.10 - 46.02
D – Core Diameter (O.D.)	102.01 maximum
E – Hub Recess Diameter	86.36 maximum
F – Hub Recess Depth	9.50 minimum
G – Arbor Hole Diameter	25.40 - 30.48

CONVERSION TABLE									
MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
.10	.004	1.52	.060	5.00	.197	9.91	.390	32.00	1.260
.20	.007	2.00	.079	5.08	.200	10.03	.395	38.10	1.500
.38	.015	2.54	.100	6.22	.245	10.16	.400	46.02	1.812
.41	.016	3.00	.118	6.35	.250	11.68	.460	50.80	2.000
.51	.020	3.18	.125	6.60	.260	12.50	.492	86.36	3.400
.71	.028	3.48	.137	6.99	.275	12.70	.500	88.90	3.500
.79	.031	3.81	.150	7.62	.300	16.00	.630	102.01	4.016
.99	.039	3.99	.157	8.89	.350	18.01	.709	254.00	10.000
1.02	.040	4.45	.175	9.02	.355	25.40	1.000	304.80	12.000
1.42	.056	4.98	.196	9.50	.374	30.48	1.200	355.00	14.000