

Radial Leads/SkyCap®/SR Series



GENERAL INFORMATION

AVX SR Series

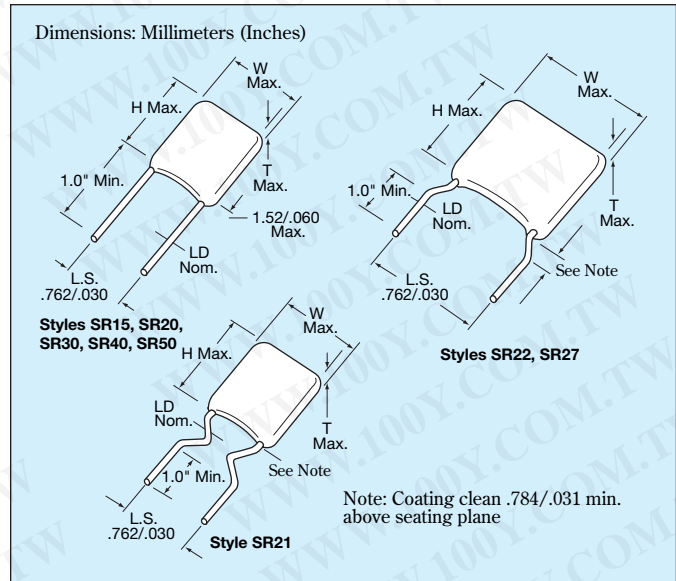
Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

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

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

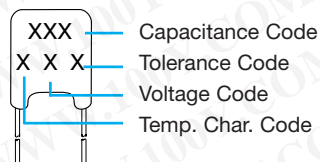


HOW TO ORDER

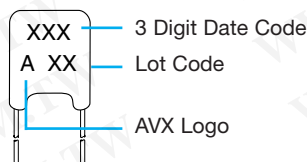
SR21	5	E	104	M	A	R
AVX Style	Voltage	Temperature Coefficient	Capacitance	Capacitance Tolerance	Failure Rate	Leads
SR15 SR20 SR21 SR22 SR27 SR30 SR40 SR50	5 = 50V 1 = 100V 2 = 200V 9 = 300V 8 = 400V 7 = 500V	A = C0G (NP0) C = X7R E = Z5U	First two digits are the significant figures of capacitance. Third 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.)	COG (NP0): C = ±.25pF D = ±.5pF F = ±1% (>50pF only) G = ±2% (>25pF only) J = ±5% K = ±10% M = ±20%	X7R: J = ±5% K = ±10% M = ±20% Z5U: M = ±20% Z = +80% -20%	A = Not Applicable R = RoHS

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.

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 勝特力电子(上海) 86-21-34970699
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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 Values in Blue	WVDC		WVDC		WVDC		WVDC		WVDC		WVDC		WVDC		WVDC		WVDC	
	200	100	50	200	100	50	200	100	50	200	100	50	100	50	100	50	100	50
1.0-9.9	SR151A1R0DAR																	
10	SR151A100KAR																	
15	SR.....A150KAR																	
22	SR.....A220KAR																	
33	SR.....A330KAR																	
39	SR.....A390KAR																	
47	SR.....A470KAR																	
68	SR.....A680KAR																	
100	SR151A101KAR																	
150	SR.....A151KAR																	
220	SR.....A221KAR																	
330	SR.....A331KAR																	
390	SR.....A391KAR																	
470	SR.....A471KAR																	
680	SR.....A681KAR																	
1000	SR211A102KAR																	
1500	SR.....A152KAR																	
2200	SR.....A222KAR																	
3900	SR.....A392KAR																	
4700	SR.....A472KAR																	
6800	SR.....A682KAR																	
8200	SR.....A822KAR																	
10,000	SR305A103KAR																	
15,000	SR.....A153KAR																	
22,000	SR.....A223KAR																	
33,000	SR.....A333KAR																	
39,000	SR.....A393KAR																	
47,000	SR.....A473KAR																	
68,000	SR.....A683KAR																	
100,000	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

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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.* Industry Preferred Values in Blue	WVDC		WVDC		WVDC		WVDC		WVDC		WVDC		WVDC		
	200	100	50	200	100	50	200	100	50	200	100	50	200	100	50
470	SR.....C471KAR														
1000	SR155C102KAR														
1500	SR.....C152KAR														
2200	SR.....C222KAR														
3300	SR.....C332KAR														
4700	SR.....C472KAR														
6800	SR.....C682KAR														
10,000	SR215C103KAR														
15,000	SR.....C153KAR														
22,000	SR.....C223KAR														
33,000	SR.....C333KAR														
47,000	SR.....C473KAR														
68,000	SR.....C683KAR														
100,000	SR215C104KAR														
150,000	SR.....C154KAR														
220,000	SR215C224KAR														
330,000	SR.....C334KAR														
390,000	SR.....C394KAR														
470,000	SR305C474KAR														
1.0 µF	SR305C105KAR														
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

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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 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

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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.



SkyCap®

Configurations by Lead Spacing

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LEAD SPACING .100 ±.030

Dimensions: Inches (Millimeters)

<p>AR07/SR07* (T=.100)</p>	<p>AR14/SR14 (T=.100)</p>	<p>AR15/SR15* (T=.100)</p>	<p>AR20/SR20* (T=.125)</p>
<p>AR29/SR29* (T=.125)</p>	<p>AR62/SR62* (T=.125)</p> <p>Leads = #22 AWG</p>	<p>SR62-LP* (T=.100)</p> <p>Leads = #22 AWG</p>	

LEAD SPACING .200 ±.030

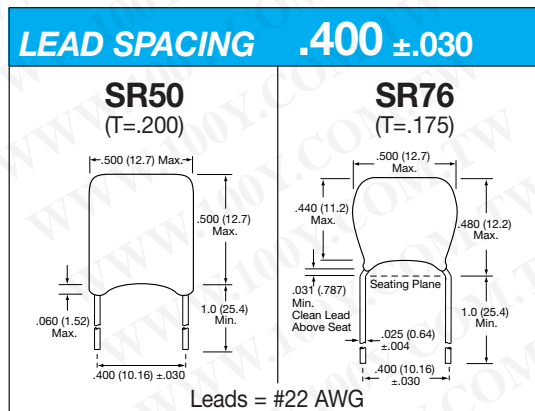
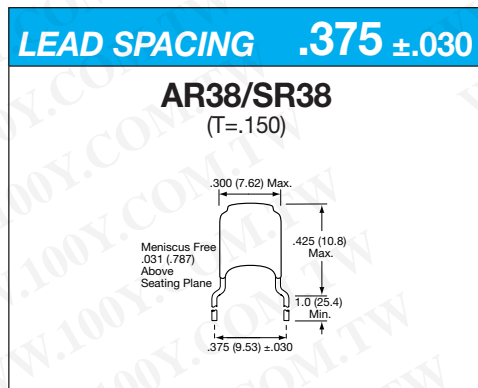
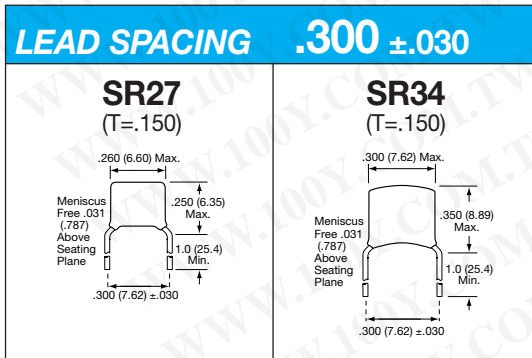
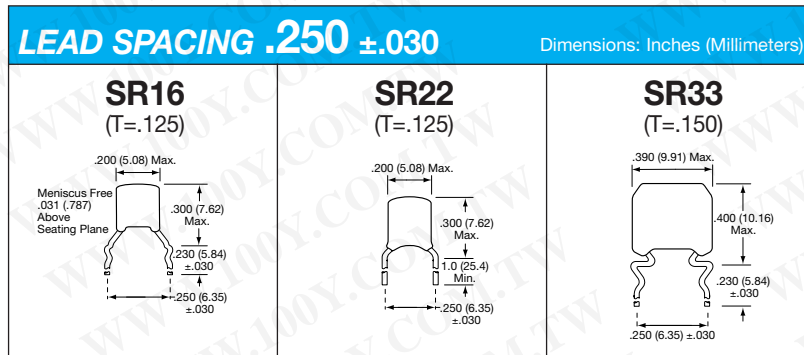
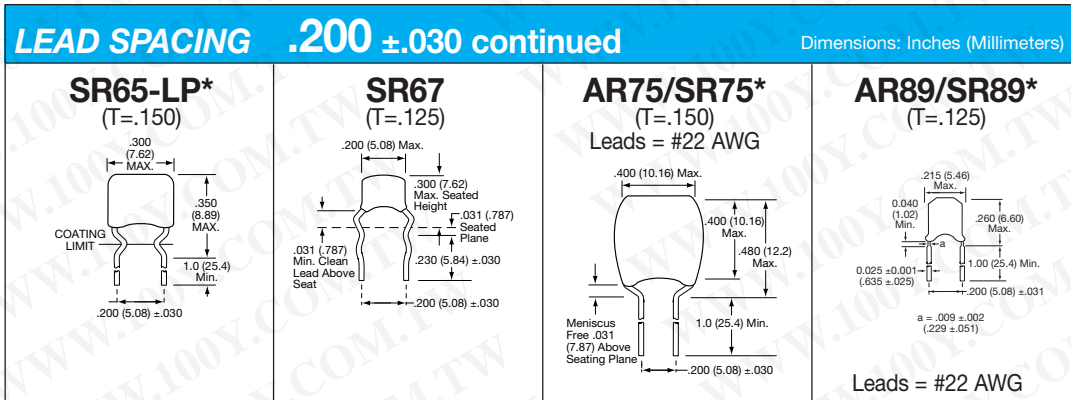
Dimensions: Inches (Millimeters)

<p>AR12/SR12* (T=.100)</p>	<p>SR13* (T=.125)</p>	<p>AR21/SR21* (T=.125)</p>	<p>SR21-85* (T=.125)</p>	<p>SR28* (T=.125)</p>
<p>AR30/SR30* (T=.150)</p>	<p>SR30-LP* (T=.150)</p>	<p>AR32/SR32* (T=.150)</p>	<p>AR40/SR40* (T=.150)</p>	<p>AR59/SR59* (T=.125)</p>
<p>SR61 (T=.150)</p>	<p>SR63* (T=.150)</p>	<p>SR64* (T=.150)</p> <p>Leads = #22 AWG</p>	<p>SR64-LP* (T=.150)</p> <p>Leads = #22 AWG</p>	<p>AR65/SR65* (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

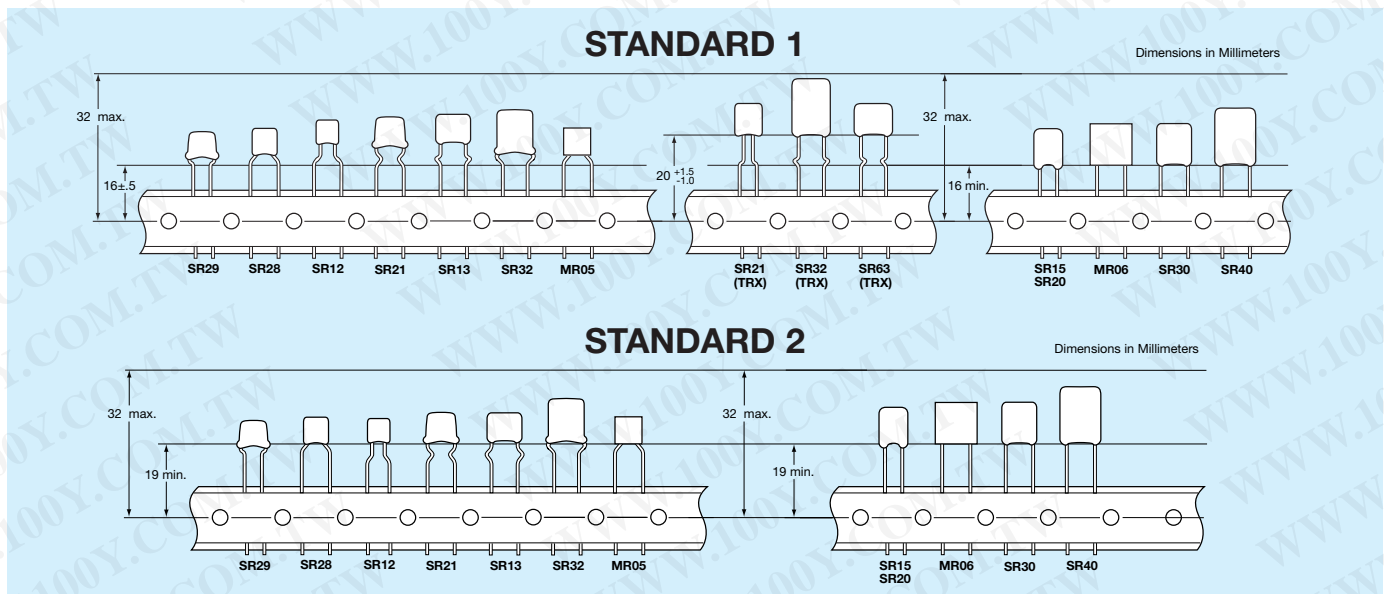
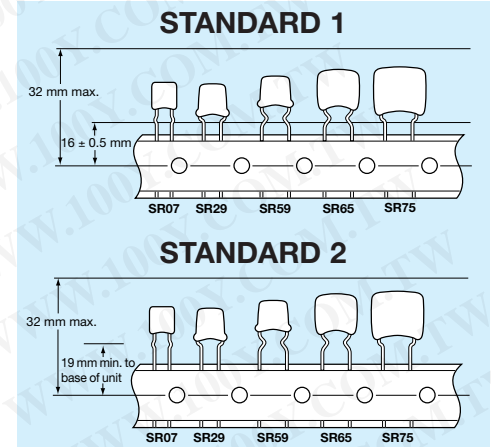
To specify tape and reel packaging, add TR1, TR2 or TRX to the end of the AVX 12 digit part number.

Examples:

SR215C104KARTR1
SR305E105MARTR2
SR215C103JARTRX

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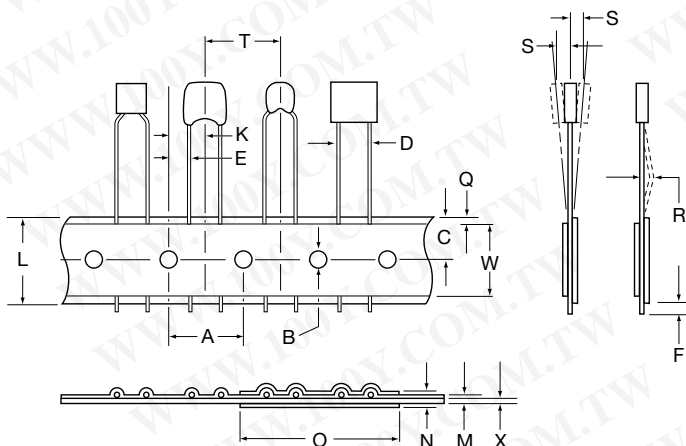
THE INSERTABLES



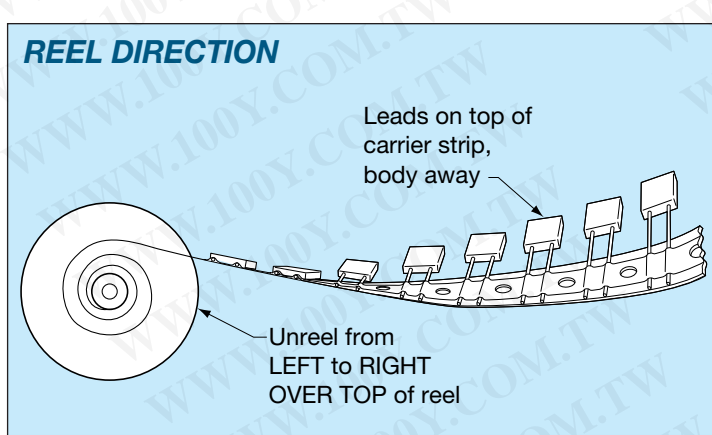
DESCRIPTION

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 ^{+0.79} _{-.20} or 2.54 ^{+0.79} _{-.20}
E. Component Lead Location	3.81 ± .51 or 5.00 ± .51 for 2.54 lead spacing
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 ^{+1.02} _{-.51}
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

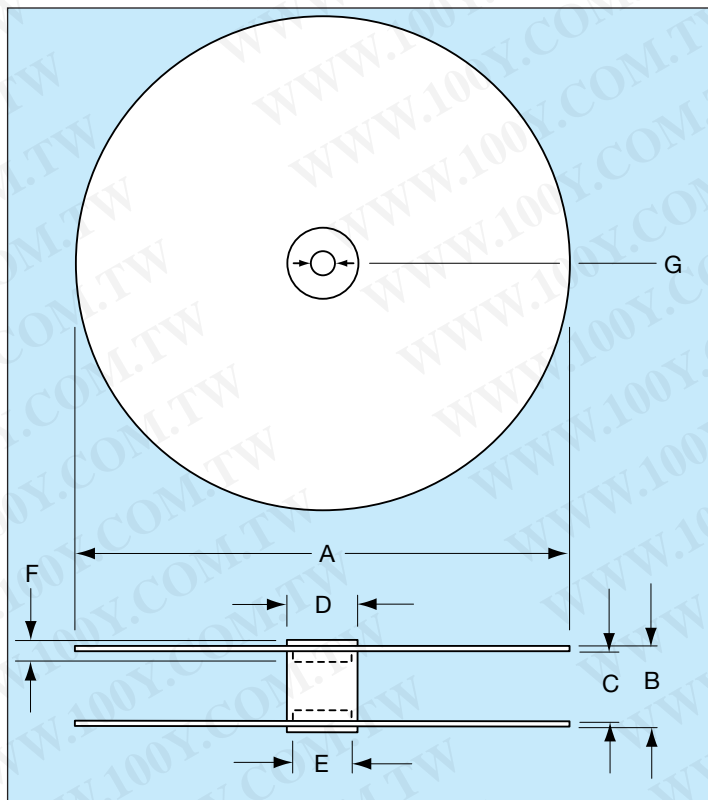


Radial Leads/Packaging



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

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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

