

Radial Leads/SkyCap®/SR Series



GENERAL INFORMATION

AVX SR Series

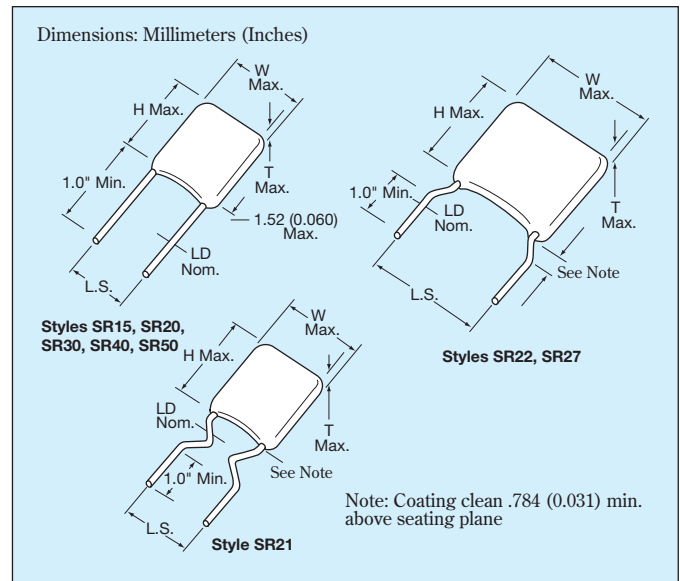
Conformally Coated Radial Ledged MLC

Temperature Coefficients: COG (NP0), X7R, Z5U

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

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin



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

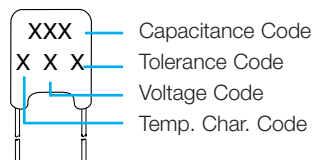
HOW TO ORDER

| SR21 | 5 | E | 104 | M | A | R | TR1 | |
|--|---|---|--|--|---|---|---|---|
| AVX Style SR15 SR20 SR21 SR22 SR27 SR30 SR40 SR50 | Voltage 5 = 50V 1 = 100V 2 = 200V 9 = 300V 8 = 400V 7 = 500V | Temperature Coefficient A = COG (NP0) C = X7R E = Z5U | Capacitance 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.) | Capacitance Tolerance COG (NP0): C = ±.25pF D = ±.5pF F = ±1% (>50pF only) G = ±2% (>25pF only) J = ±5% K = ±10% | Capacitance Tolerance X7R: J = ±5% K = ±10% M = ±20% Z5U: M = ±20% Z = +80% -20% | Failure Rate A = Not Applicable | Leads R = RoHS Long Lead 1.0" minimum | Packaging Blank = Bulk Packaging T = Trimmed Leads .230"± .030" Bulk packaging TR1 = Tape and Reel Packaging AP1 = Ammopack Packaging See packaging specification page 33-34. |

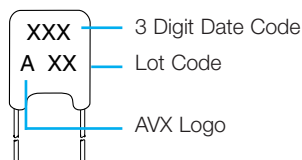


MARKING

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 |
| 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.* 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 | 200 | 100 | 50 | 200 | 100 | 50 | |
| 470 pF SR.....C471KAR | | | | | | | | | | | | | | | | | | | | | | |
| 1000 pF SR155C102KAR | | | | | | | | | | | | | | | | | | | | | | |
| 1500 pF SR.....C152KAR | | | | | | | | | | | | | | | | | | | | | | |
| 2200 pF SR.....C222KAR | | | | | | | | | | | | | | | | | | | | | | |
| 3300 pF SR.....C332KAR | | | | | | | | | | | | | | | | | | | | | | |
| 4700 pF SR.....C472KAR | | | | | | | | | | | | | | | | | | | | | | |
| 6800 pF SR.....C682KAR | | | | | | | | | | | | | | | | | | | | | | |
| 10,000 pF SR215C103KAR | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | |
| 100,000 pF SR215C104KAR | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 pF SR.....C154KAR | | | | | | | | | | | | | | | | | | | | | | |
| 220,000 pF SR215C224KAR | | | | | | | | | | | | | | | | | | | | | | |
| 330,000 pF SR.....C334KAR | | | | | | | | | | | | | | | | | | | | | | |
| 390,000 pF SR.....C394KAR | | | | | | | | | | | | | | | | | | | | | | |
| 470,000 pF SR305C474KAR | | | | | | | | | | | | | | | | | | | | | | |
| 1.0 uF SR305C105KAR | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
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| 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 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.

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 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.

