

Radial Leads/SkyCap®/SR Series



GENERAL INFORMATION

AVX SR Series

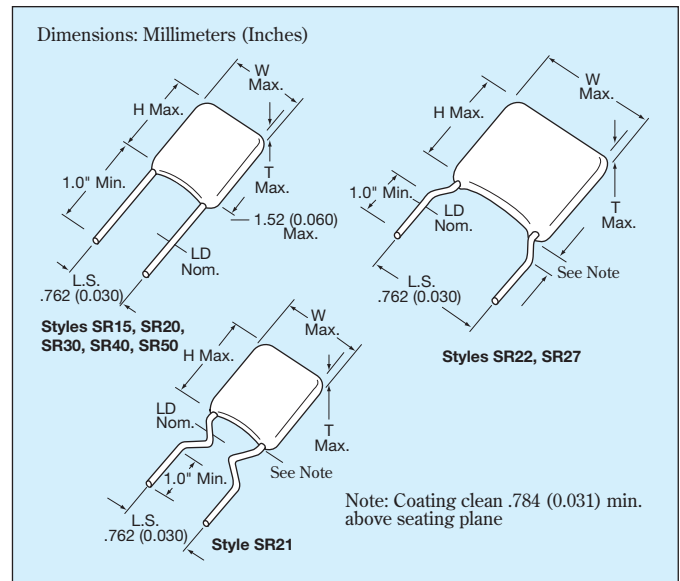
Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

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

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin



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

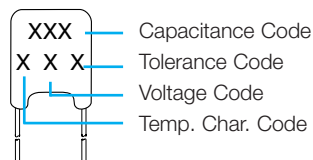
HOW TO ORDER

| | | | | | | | |
|--|---|---|---|--|---|---|---|
| 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 = C0G (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 C0G (NP0): C = ±.25pF D = ±.5pF F = ±1% (>50pF only) G = ±2% (>25pF only) J = ±5% K = ±10% | 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. |

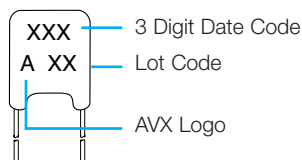


MARKING

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 | | 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 10 15 | SR15A1R0DAR SR15A100KAR SR.....A150KAR | | | | | | | | | | | | | | | | | |
| 22 33 39 | SR.....A220KAR SR.....A330KAR SR.....A390KAR | | | | | | | | | | | | | | | | | |
| 47 68 100 | SR.....A470KAR SR.....A680KAR SR15A101KAR | | | | | | | | | | | | | | | | | |
| 150 220 330 | SR.....A151KAR SR.....A221KAR SR.....A331KAR | | | | | | | | | | | | | | | | | |
| 390 470 680 | SR.....A391KAR SR.....A471KAR SR.....A681KAR | | | | | | | | | | | | | | | | | |
| 1000 1500 2200 | SR21A102KAR 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.....C471KAA | | | | | | | | | | | | | | | | | | | | | | |
| 1000 pF SR155C102KAA | | | | | | | | | | | | | | | | | | | | | | |
| 1500 pF SR.....C152KAA | | | | | | | | | | | | | | | | | | | | | | |
| 2200 pF SR.....C222KAA | | | | | | | | | | | | | | | | | | | | | | |
| 3300 pF SR.....C332KAA | | | | | | | | | | | | | | | | | | | | | | |
| 4700 pF SR.....C472KAA | | | | | | | | | | | | | | | | | | | | | | |
| 6800 pF SR.....C682KAA | | | | | | | | | | | | | | | | | | | | | | |
| 10,000 pF SR215C103KAA | | | | | | | | | | | | | | | | | | | | | | |
| 15,000 pF SR.....C153KAA | | | | | | | | | | | | | | | | | | | | | | |
| 22,000 pF SR.....C223KAA | | | | | | | | | | | | | | | | | | | | | | |
| 33,000 pF SR.....C333KAA | | | | | | | | | | | | | | | | | | | | | | |
| 47,000 pF SR.....C473KAA | | | | | | | | | | | | | | | | | | | | | | |
| 68,000 pF SR.....C683KAA | | | | | | | | | | | | | | | | | | | | | | |
| 100,000 pF SR215C104KAA | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 pF SR.....C154KAA | | | | | | | | | | | | | | | | | | | | | | |
| 220,000 pF SR215C224KAA | | | | | | | | | | | | | | | | | | | | | | |
| 330,000 pF SR.....C334KAA | | | | | | | | | | | | | | | | | | | | | | |
| 390,000 pF SR.....C394KAA | | | | | | | | | | | | | | | | | | | | | | |
| 470,000 pF 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 Values in Blue | WVDC | WVDC | WVDC | WVDC | WVDC | WVDC | WVDC | WVDC |
| | 100 50 | 100 50 | 100 50 | 100 50 | 100 50 | 100 50 | 100 50 | 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 (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.

Radial Leads/SkyCap®/SL Series



GENERAL INFORMATION

AVX SL Series

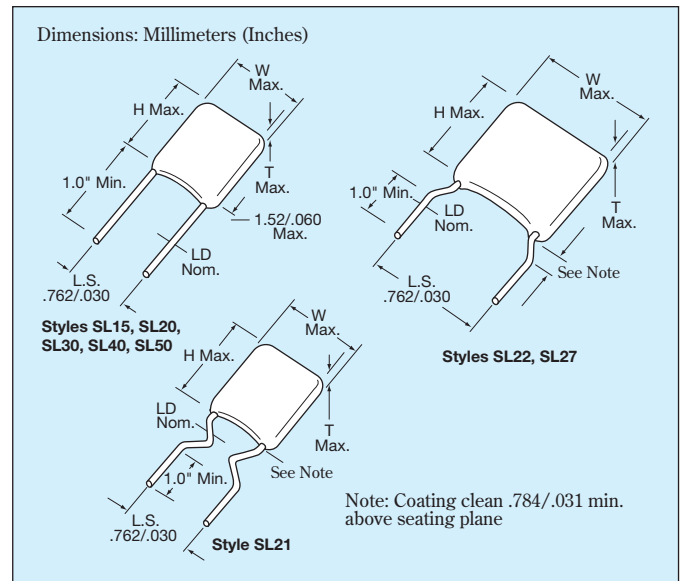
Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

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

Case Material: Epoxy

Lead Material: Solderable Sn/Pb



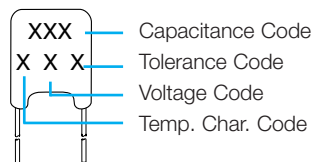
HOW TO ORDER

| SL21 | 5 | E | 104 | M | A | B | TR1 |
|--|---|-------------------------------------|--|--|---|--|---|
| AVX Style | Voltage | Temperature Coefficient | Capacitance | Capacitance Tolerance | Failure Rate | Leads | Packaging |
| SL15 SL20 SL21 SL22 SL27 SL30 SL40 SL50 | 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 B = Leads Sn/Pb (Tin lead product) | Blank = Bulk Packaging T = Trimmed Leads .230"±.030" Bulk packaging TR1 = Tape and Reel Packaging AP1 = Ammopack Packaging See packaging specification page 33-34. |

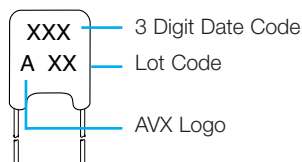
Not RoHS Compliant

MARKING

FRONT



BACK



PACKAGING REQUIREMENTS

| | Quantity per Bag |
|--------------------------|------------------|
| SL15, 20, 21, 22, 27, 30 | 1000 Pieces |
| SL40, 50 | 500 Pieces |

Note: SL15, SL20, SL21, SL30, and SL40 available on tape and reel per EIA specifications RS-468. See Pages 33 and 34.



Radial Leads/SkyCap®/SL Series



C0G (NP0) Dielectric

SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style | SL15 | SL20 | SL21 | SL22 | SL27 | SL30 | SL40 | SL50 |
|--|-----------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|
| AVX "Insertable" | SL07 | SL29 | SL59 | N/A | N/A | SL65 | SL75 | 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 | WVDC | WVDC | WVDC | WVDC | WVDC | WVDC |
| | | 200 100 50 | 200 100 50 | 200 100 50 | 200 100 50 | 200 100 50 | 100 50 | 100 50 |
| 1.0-9.9 | SL151A1R0DAB | | | | | | | |
| 10 | SL151A100KAB | | | | | | | |
| 15 | SL.....A150KAB | | | | | | | |
| 22 | SL.....A220KAB | | | | | | | |
| 33 | SL.....A330KAB | | | | | | | |
| 39 | SL.....A390KAB | | | | | | | |
| 47 | SL.....A470KAB | | | | | | | |
| 68 | SL.....A680KAB | | | | | | | |
| 100 | SL151A101KAB | | | | | | | |
| 150 | SL.....A151KAB | | | | | | | |
| 220 | SL.....A221KAB | | | | | | | |
| 330 | SL.....A331KAB | | | | | | | |
| 390 | SL.....A391KAB | | | | | | | |
| 470 | SL.....A471KAB | | | | | | | |
| 680 | SL.....A681KAB | | | | | | | |
| 1000 | SL211A102KAB | | | | | | | |
| 1500 | SL.....A152KAB | | | | | | | |
| 2200 | SL.....A222KAB | | | | | | | |
| 3900 | SL.....A392KAB | | | | | | | |
| 4700 | SL.....A472KAB | | | | | | | |
| 6800 | SL.....A682KAB | | | | | | | |
| 8200 | SL.....A822KAB | | | | | | | |
| 10,000 | SL305A103KAB | | | | | | | |
| 15,000 | SL.....A153KAB | | | | | | | |
| 22,000 | SL.....A223KAB | | | | | | | |
| 33,000 | SL.....A333KAB | | | | | | | |
| 39,000 | SL.....A393KAB | | | | | | | |
| 47,000 | SL.....A473KAB | | | | | | | |
| 68,000 | SL.....A683KAB | | | | | | | |
| 100,000 | SL.....A104KAB | | | | | | | |

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
 = SL20 only

NOTE: Capacitance Ranges available for SL12 same as SL15
 SL62 same as SL21
 SL64 same as SL30
 SL89 same as SL21



Radial Leads/SkyCap®/SL Series



X7R Dielectric




SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style | SL15 | SL20 | SL21 | SL22 | SL27 | SL30 | SL40 | SL50 | | | | | | | | | | | | | | |
|---|----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|--|
| AVX "Insertable" | SL07 | SL29 | SL59 | N/A | N/A | SL65 | SL75 | 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 SL.....C471KAA | | | | | | | | | | | | | | | | | | | | | | |
| 1000 pF SL155C102KAA | | | | | | | | | | | | | | | | | | | | | | |
| 1500 pF SL.....C152KAA | | | | | | | | | | | | | | | | | | | | | | |
| 2200 pF SL.....C222KAA | | | | | | | | | | | | | | | | | | | | | | |
| 3300 pF SL.....C332KAA | | | | | | | | | | | | | | | | | | | | | | |
| 4700 pF SL.....C472KAA | | | | | | | | | | | | | | | | | | | | | | |
| 6800 pF SL.....C682KAA | | | | | | | | | | | | | | | | | | | | | | |
| 10,000 pF SL215C103KAA | | | | | | | | | | | | | | | | | | | | | | |
| 15,000 pF SL.....C153KAA | | | | | | | | | | | | | | | | | | | | | | |
| 22,000 pF SL.....C223KAA | | | | | | | | | | | | | | | | | | | | | | |
| 33,000 pF SL.....C333KAA | | | | | | | | | | | | | | | | | | | | | | |
| 47,000 pF SL.....C473KAA | | | | | | | | | | | | | | | | | | | | | | |
| 68,000 pF SL.....C683KAA | | | | | | | | | | | | | | | | | | | | | | |
| 100,000 pF SL215C104KAA | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 pF SL.....C154KAA | | | | | | | | | | | | | | | | | | | | | | |
| 220,000 pF SL215C224KAA | | | | | | | | | | | | | | | | | | | | | | |
| 330,000 pF SL.....C334KAA | | | | | | | | | | | | | | | | | | | | | | |
| 390,000 pF SL.....C394KAA | | | | | | | | | | | | | | | | | | | | | | |
| 470,000 pF SL305C474KAA | | | | | | | | | | | | | | | | | | | | | | |
| 1.0 uF SL305C105KAA | | | | | | | | | | | | | | | | | | | | | | |
| 2.2 uF SL405C225KAA | | | | | | | | | | | | | | | | | | | | | | |
| 2.7 uF SL505C275KAA | | | | | | | | | | | | | | | | | | | | | | |
| 4.7 uF SL505C475KAA | | | | | | | | | | | | | | | | | | | | | | |
| 10.0 uF SL655C106KAA | | | | | | | | | | | | | | | | | | | | | | |

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®/SL Series



Z5U Dielectric

SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style | SL15 | SL20 | SL21 | SL22 | SL27 | SL30 | SL40 | SL50 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| AVX "Insertable" | SL07 | SL29 | SL59 | N/A | N/A | SL65 | SL75 | 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 SL155E103ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 47,000 SL.....E473ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 100,000 SL215E104ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 150,000 SL.....E154ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 220,000 SL215E224ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 330,000 SL215E334ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 470,000 SL215E474ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 680,000 SL.....E684ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 1.0 µF SL.....105ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 1.5 µF SL30E155ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 2.2 µF SL30E225ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 3.3 µF SL30E335ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |
| 4.7 µF SL30E475ZAB | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred | Industry preferred |

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
- = SL20 only

AVX 500 VOLT SKYCAPS**

| STYLE* | MAXIMUM CAPACITANCE VALUE | |
|--------|---------------------------|---------|
| | COG (NP0) | X7R |
| SL29 | 900 pF | .015 µF |
| SL20 | 1800 pF | .033 µF |
| SL28 | 900 pF | .015 µF |
| SL59 | | |
| SL13 | 1800 pF | .033 µF |
| SL21 | | |
| SL30 | 7200 pF | .12 µF |
| SL61 | | |
| SL65 | | |
| SL40 | .015 µF | .27 µF |
| SL75 | | |
| SL22 | 1800 pF | .033 µF |
| SL27 | 1800 pF | .033 µF |
| SL76 | .015 µF | .27 µF |
| SL50 | .036 µF | .59 µF |

*Consult pages 27 and 28 for style sizes.

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



Radial Leads/SkyCap®/AR Series



AUTOMOTIVE

GENERAL INFORMATION

AVX AR Series

Conformally Coated Radial Ledged MLC

Temperature Coefficients: COG (NP0), X7R, X8R

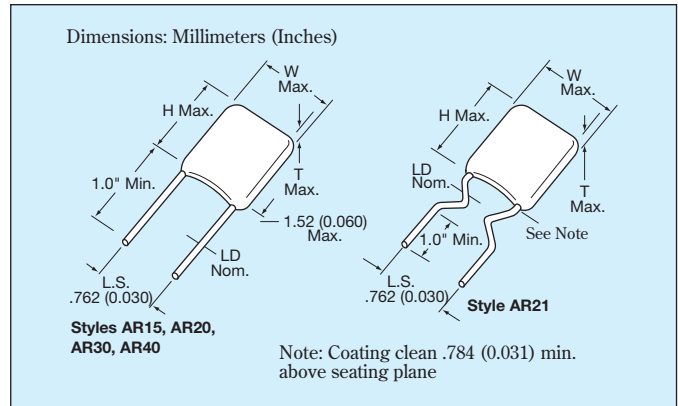
200, 100, 50 Volts

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

Temperature Range: up to 150°C



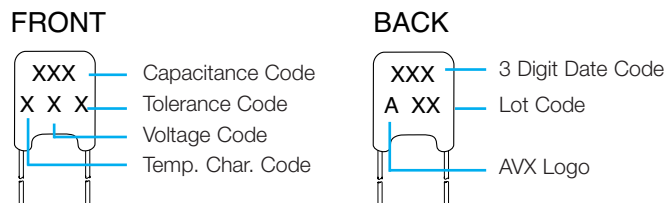
Drawings are for illustrative purposes only.
Actual lead form shape could vary within stated tolerances based on body size.

HOW TO ORDER

| | | | | | | | |
|------------------|---------------------------------|-------------------------------------|---|--|--|--------------|--|
| AR21 | 5 | F | 104 | M | 4 | R | TR1 |
| AVX Style | Voltage | Temperature Coefficient | Capacitance | Capacitance Tolerance | Failure Rate | Leads | Packaging |
| | 5 = 50V 1 = 100V 2 = 200V | A = COG (NP0) C = X7R F = X8R | 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% | X7R: J = ±5% K = ±10% M = ±20% X8R: J = ±5% K = ±10% M = ±20% | 4 = AEC-Q200 | R = RoHS Long Lead 1.0" minimum 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



PACKAGING REQUIREMENTS

| | Quantity per Bag |
|------------------|------------------|
| AR15, 20, 21, 30 | 1000 Pieces |
| AR40 | 500 Pieces |

Note: AR15, AR20, AR21, AR30, and AR40 available on tape and reel per EIA specifications RS-468. See pages 33 and 34.

Radial Leads/AR Series

C0G (NP0) Dielectric



SIZE AND CAPACITANCE SPECIFICATIONS

| EIA Characteristic | | Dimensions: Millimeters (Inches) | | | | | | | | |
|----------------------|-----------------------------------|----------------------------------|-----|----|-----------------|-----|----|-----------------|-----|----|
| AVX Style | | AR15 | | | AR20 | | | AR21 | | |
| AVX "Insertable" | | AR07 | | | AR29 | | | AR59 | | |
| Width (W) | | 3.81 (.150) | | | 5.08 (.200) | | | 5.08 (.200) | | |
| Height (H) | | 3.81 (.150) | | | 5.08 (.200) | | | 5.08 (.200) | | |
| Thickness (T) | | 2.54 (.100) | | | 3.175 (.125) | | | 3.175 (.125) | | |
| Lead Spacing (L.S.) | | 2.54 (.100) | | | 2.54 (.100) | | | 5.08 (.200) | | |
| Lead Diameter (L.D.) | | .508 (.020) | | | .508 (.020) | | | .508 (.020) | | |
| Cap in pF | Industry Preferred Values in Blue | WVDC | | | WVDC | | | WVDC | | |
| | | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 |
| 1 | AR.....A1R0D4R | | | | | | | | | |
| 10 | AR.....A100K4R | | | | | | | | | |
| 15 | AR.....A150K4R | | | | | | | | | |
| 22 | AR.....A220K4R | | | | | | | | | |
| 33 | AR.....A330K4R | | | | | | | | | |
| 39 | AR.....A390K4R | | | | | | | | | |
| 47 | AR.....A470K4R | | | | | | | | | |
| 68 | AR.....A680K4R | | | | | | | | | |
| 100 | AR.....A101K4R | | | | | | | | | |
| 150 | AR.....A151K4R | | | | | | | | | |
| 220 | AR.....A221K4R | | | | | | | | | |
| 330 | AR.....A331K4R | | | | | | | | | |
| 390 | AR.....A391K4R | | | | | | | | | |
| 470 | AR.....A471K4R | | | | | | | | | |
| 680 | AR.....A681K4R | | | | | | | | | |
| 1,000 | AR.....A102K4R | | | | | | | | | |
| 1,500 | AR.....A152K4R | | | | | | | | | |
| 2,200 | AR.....A222K4R | | | | | | | | | |
| 3,900 | AR.....A392K4R | | | | | | | | | |
| 4,700 | AR.....A472K4R | | | | | | | | | |
| 6800 | AR.....A682K4R | | | | | | | | | |
| 8200 | AR.....A822K4R | | | | | | | | | |

Notes:
 "Insertable" make reference to alternative AVX style using the same range of capacitance available on the matrix.
 For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.
 Others capacitance values available upon special request.
 Others styles available: AR12, AR14, AR62, AR89.



Radial Leads/AR Series



X7R Dielectric

SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic Dimensions: Millimeters (Inches)

| | AVX Style | AR15 | AR20 | AR21 | AR30 | AR40 |
|----------------------|-----------------------------------|----------------|-----------------|-----------------|----------------|-----------------|
| | AVX "Insertable" | AR07 | AR29 | AR59 | AR65 | AR75 |
| Width (W) | | 3.81 (.150) | 5.08 (.200) | 5.08 (.200) | 7.62 (.300) | 10.16 (.400) |
| Height (H) | | 3.81 (.150) | 5.08 (.200) | 5.08 (.200) | 7.62 (.300) | 10.16 (.400) |
| Thickness (T) | | 2.54 (.100) | 3.175 (.125) | 3.175 (.125) | 3.81 (.150) | 3.81 (.150) |
| Lead Spacing (L.S.) | | 2.54 (.100) | 2.54 (.100) | 5.08 (.200) | 5.08 (.200) | 5.08 (.200) |
| Lead Diameter (L.D.) | | .508 (.020) | .508 (.020) | .508 (.020) | .508 (.020) | .508 (.020) |
| Cap in pF | Industry Preferred Values in Blue | WVDC 100 50 | WVDC 100 50 | WVDC 100 50 | WVDC 100 50 | WVDC 100 50 |
| 470 | AR....C471K4R | | | | | |
| 1000 | AR....C102K4R | | | | | |
| 1500 | AR....C152K4R | | | | | |
| 2200 | AR....C222K4R | | | | | |
| 3300 | AR....C332K4R | | | | | |
| 4700 | AR....C472K4R | | | | | |
| 6800 | AR....C682K4R | | | | | |
| 10,000 | AR....C103K4R | | | | | |
| 15,000 | AR....C153K4R | | | | | |
| 22,000 | AR....C223K4R | | | | | |
| 33,000 | AR....C333K4R | | | | | |
| 47,000 | AR....C473K4R | | | | | |
| 68,000 | AR....C683K4R | | | | | |
| 100,000 | AR....C104K4R | | | | | |
| 150,000 | AR....C154K4R | | | | | |
| 220,000 | AR....C224K4R | | | | | |
| 330,000 | AR....C334K4R | | | | | |
| 390,000 | AR....C394K4R | | | | | |
| 470,000 | AR....C474K4R | | | | | |
| 680,000 | AR....C684K4R | | | | | |
| 1.0 uF | AR....C105K4R | | | | | |
| 4,700,000 | AR....C475K4R | | | | | |
| 6,800,000 | AR....C685K4R | | | | | |
| 10.0 uF | AR....C106K4R | | | | | |

= Extended range with 0.150" thickness maximum

Notes:

"Insertable" make reference to alternative AVX style using the same range of capacitance available on the matrix. For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory. Others capacitance values available upon special request. Others styles available: AR12, AR14, AR62, AR89, AR32, AR38.



Radial Leads/AR Series

X8R Dielectric



SIZE AND CAPACITANCE SPECIFICATIONS

| EIA Characteristic | | Dimensions: Millimeters (Inches) | | | | | |
|----------------------|-----------------------------------|----------------------------------|-----|-----------------|------|-----|----|
| AVX Style | | AR20 | | AR21 | | | |
| AVX "Insertable" | | AR29 | | AR59 | | | |
| Width (W) | | 5.08 (.200) | | 5.08 (.200) | | | |
| Height (H) | | 5.08 (.200) | | 5.08 (.200) | | | |
| Thickness (T) | | 3.175 (.125) | | 3.175 (.125) | | | |
| Lead Spacing (L.S.) | | 2.54 (.100) | | 5.08 (.200) | | | |
| Lead Diameter (L.D.) | | .508 (.020) | | .508 (.020) | | | |
| Cap in pF | Industry Preferred Values in Blue | WVDC | | | WVDC | | |
| | | 200 | 100 | 50 | 200 | 100 | 50 |
| 1,000 | AR.....F102K4R | | | | | | |
| 10,000 | AR.....F103K4R | | | | | | |
| 100,000 | AR.....F104K4R | | | | | | |
| 330,000 | AR.....F334K4R | | | | | | |

Notes:
 "Insertable" make reference to alternative AVX style using the same range of capacitance available on the matrix.
 For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.
 Others capacitance values available upon special request.
 Others styles available: AR14, AR62, AR89.



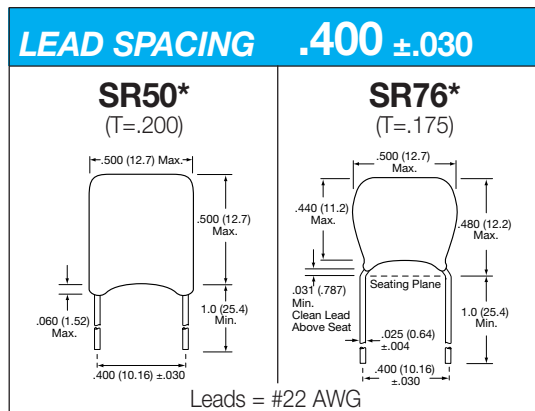
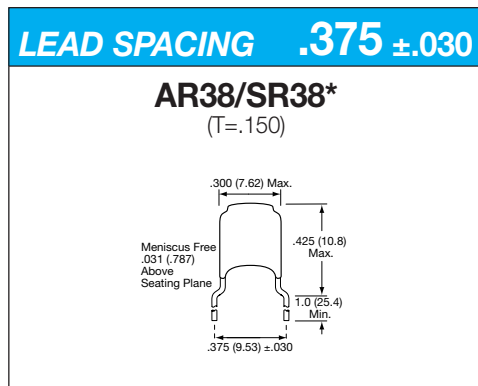
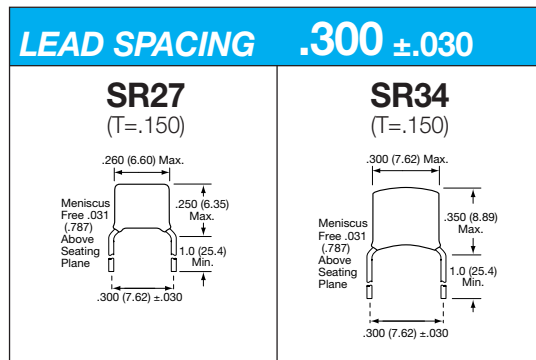
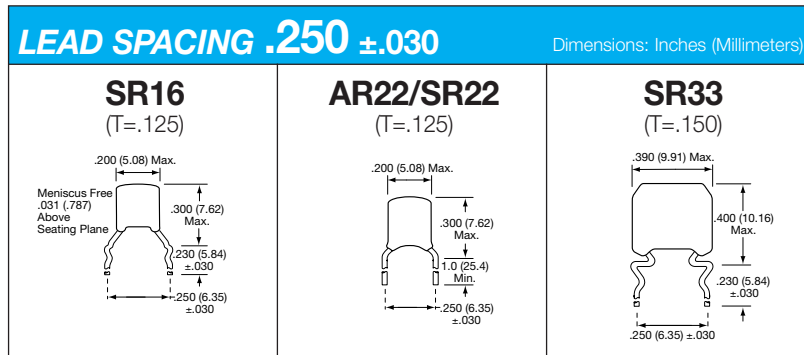
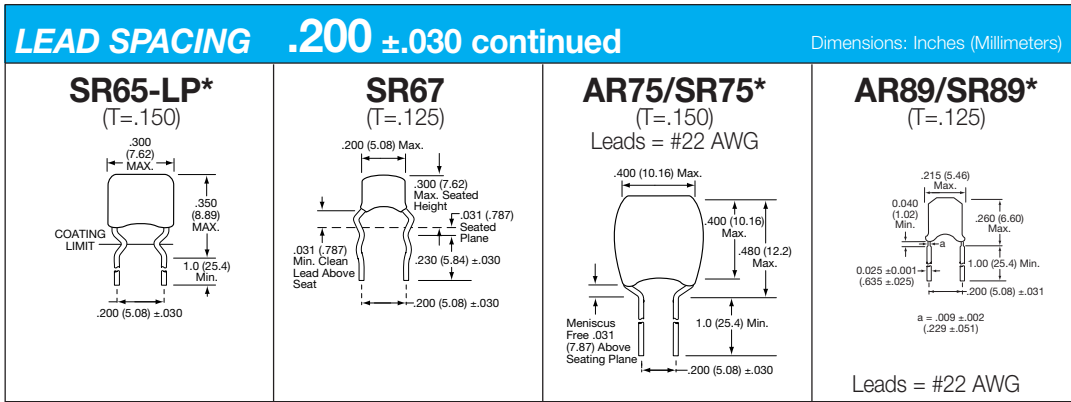
Configurations by Lead Spacing

| 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> |
| <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> | | | | | |
| <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.

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