

RADIAL LEADS

SkyCap®/AR Series – Automotive



GENERAL INFORMATION

AVX AR Series

Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, X8R

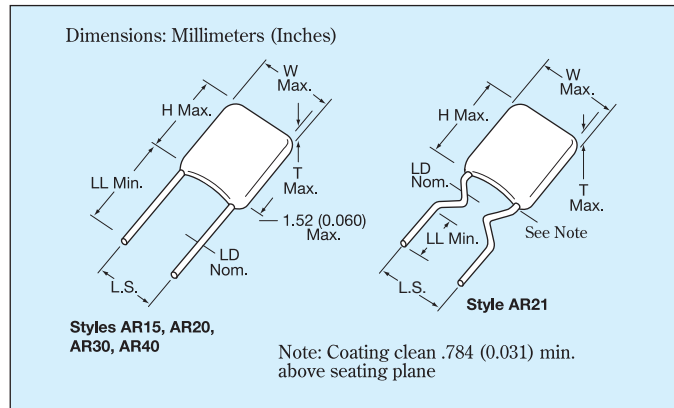
3000, 2000, 1000, 200, 100, 50 Volts

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

Temperature Range: up to 150°C



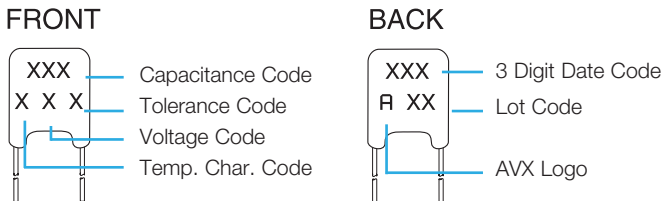
Drawings are for illustrative purposes only. Actual lead form shape could vary within stated tolerances based on body size.

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 = 1000V G = 2000V H = 3000V | A = C0G (NP0) C = X7R F = X8R L = X8L | 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% | X8R: J = ±5% K = ±10% M = ±20% | Blank: Bulk Packaging 1.0" minimum of lead length T: Trimmed leads .230" ± .030" Bulk packaging TR1: Tape and Reel Packaging AP1: Ammopack packaging See packaging specification pages 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

COG (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.



The Important Information/Disclaimer is incorporated in these specifications by reference and should be reviewed in full before placing any order.

RADIAL LEADS

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 | | WVDC | | WVDC | | WVDC | |
| | | 100 | 50 | 100 | 50 | 100 | 50 | 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

X8R Dielectric "F"



GENERAL INFORMATION

AVX AR Series

Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, X8R

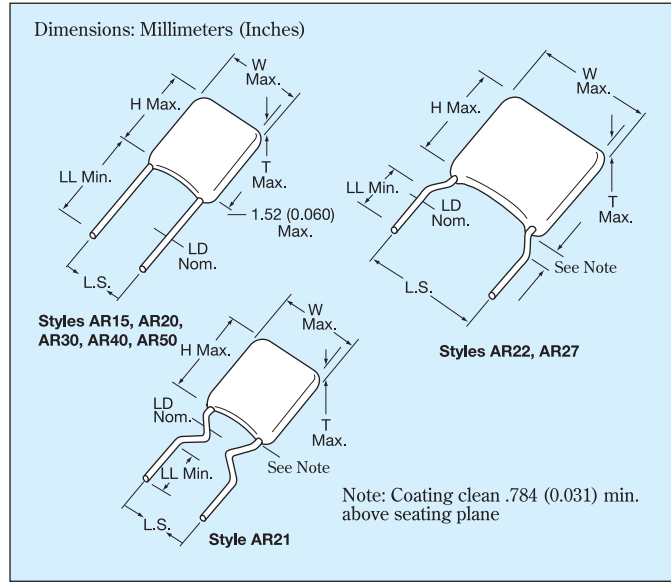
200, 100, 50 Volts

Case Material: Epoxy

Lead Material: Solderable

Qualified: to AEC-Q200

Temperature Range: up to 150°C



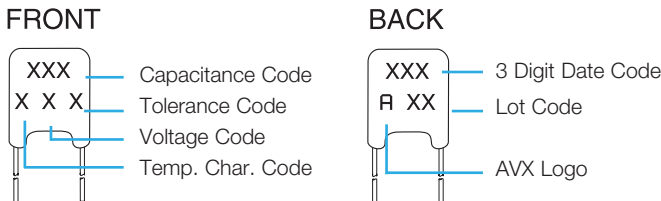
Drawings are for illustrative purposes only. Actual lead form shape could vary within stated tolerances based on body size.

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 | 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.) | X8R: J = ±5% K = ±10% M = ±20% | 4 = AEC-Q200 | R = RoHS | Blank: Bulk Packaging 1.0" minimum of lead length T: Trimmed leads .230" ± .030" Bulk packaging TR1: Tape and Reel Packaging AP1: Ammopack packaging |
| | | | | | | | See packaging specification pages 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

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.



RADIAL LEADS

X8L Dielectric



STYLES AND CAPACITANCE SPECIFICATIONS

EIA Characteristics

| AVX Style | | AR15 | | AR20 | | AR21 | |
|------------------|---------------------------|------|----|------|----|------|----|
| AVX "Insertable" | | AR07 | | AR29 | | AR59 | |
| Cap. in pF | Industry Preferred Values | WVDC | | WVDC | | WVDC | |
| | | 100 | 50 | 100 | 50 | 100 | 50 |
| 470 | AR____L471K4R | | | | | | |
| 1,000 | AR____L102K4R | | | | | | |
| 1,500 | AR____L152K4R | | | | | | |
| 2,200 | AR____L222K4R | | | | | | |
| 3,300 | AR____L332K4R | | | | | | |
| 4,700 | AR____L472K4R | | | | | | |
| 6,800 | AR____L682K4R | | | | | | |
| 10,000 | AR____L103K4R | | | | | | |
| 15,000 | AR____L153K4R | | | | | | |
| 22,000 | AR____L223K4R | | | | | | |
| 33,000 | AR____L333K4R | | | | | | |
| 47,000 | AR____L473K4R | | | | | | |
| 68,000 | AR____L683K4R | | | | | | |
| 100,000 | AR____L104K4R | | | | | | |
| 150,000 | AR____L154K4R | | | | | | |
| 220,000 | AR____L224K4R | | | | | | |
| 330,000 | AR____L334K4R | | | | | | |
| 390,000 | AR____L394K4R | | | | | | |
| 470,000 | AR____L474K4R | | | | | | |
| 680,000 | AR____L684K4R | | | | | | |
| 1.0 uF | AR____L105K4R | | | | | | |
| 4700,000 | AR____L475K4R | | | | | | |
| 6800,000 | AR____L685K4R | | | | | | |
| 10.0 uF | AR____L106K4R | | | | | | |



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RADIAL LEADS

High Voltage Automotive Product SkyCap Capacitors - X7R Dielectric



SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic Dimensions: Millimeters (Inches)

| | AVX Style | AR20 | AR21 | AR22 | AR27 | AR30 | |
|-------------|-----------------------------------|-----------|-----------|-----------|-----------|----------------|--|
| | AVX "Insertable" | AR29 | AR59 | N/A | N/A | AR65 | |
| Cap. in. pF | Industry Preferred Values in Blue | WVDC 1000 | WVDC 1000 | WVDC 1000 | WVDC 1000 | WVDC 2000 3000 | |
| 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 | | | | | | |
| 47,000 | AR____C473K4R | | | | | | |
| 68,000 | AR____C683K4R | | | | | | |

For others Styles, voltages, tolerance and lead lengths see Skycap catalog or contact factory.

RADIAL LEADS

SkyCap® Configurations by Lead Spacing



| LEAD SPACING .100 ±.030 | | | | Dimensions: Inches (Millimeters) | | | |
|---------------------------------------|---|---------------------------------------|---------------------------------------|--|--|--|--|
| <p>AR07/SR07* (T=.100)</p> | <p>AR14/SR14 (T=.100)</p> <p>Meniscus Free .031 (.787) Above Seating Plane</p> | <p>AR15/SR15* (T=.100)</p> | <p>AR20/SR20* (T=.125)</p> | <p>AR29/SR29* (T=.125)</p> <p>Meniscus Free .031 (.787) Above Seating Plane</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>Meniscus Free .031 (.787) Above Seating Plane</p> | <p>AR21/SR21* (T=.125)</p> | <p>SR21-85* (T=.125)</p> <p>Meniscus Free .031 (.787) Above Seating Plane</p> | <p>SR28* (T=.125)</p> <p>Meniscus Free .031 (.787) Above Seating Plane</p> | <p>AR30/SR30* (T=.150)</p> | <p>SR30-LP* (T=.150)</p> | <p>AR32/SR32* (T=.150)</p> <p>Meniscus Free .031 (.787) Above Seating Plane</p> | <p>AR40/SR40* (T=.150)</p> | <p>AR59/SR59* (T=.125)</p> |
| <p>SR61 (T=.150)</p> <p>Meniscus Free .031 (.787) Above Seating Plane</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> | | | | | |

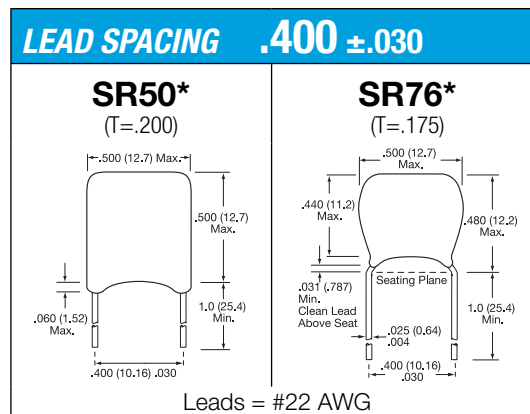
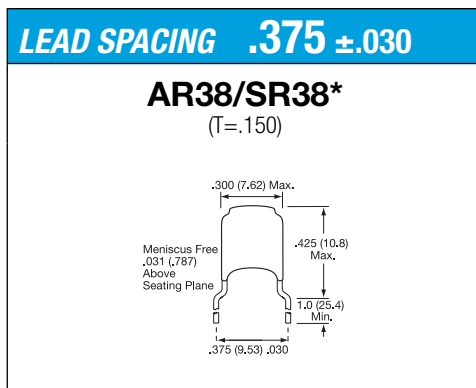
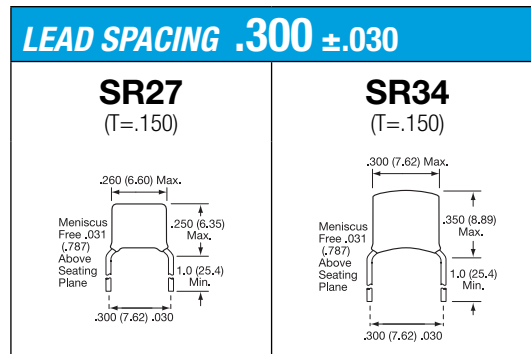
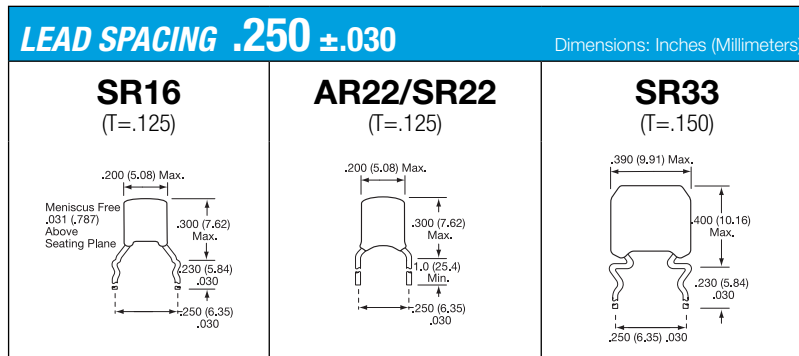
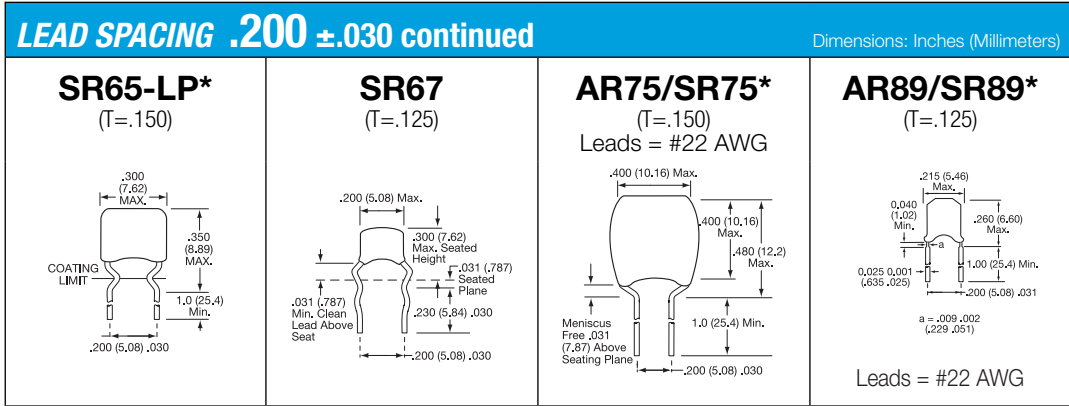
*SL style available in all SR configurations.



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RADIAL LEADS

SkyCap® 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.

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

*SL style available in all SR configurations.



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IMPORTANT INFORMATION/DISCLAIMER

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Although all product–related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

Mouser Electronics

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[AR215A101K4R](#) [AR215C102K4R](#) [AR215A102K4R](#) [AR215C103K4R](#) [AR215C104K4R](#) [AR215C224K4R](#)
[AR211C103K4R](#) [AR155C102K4R](#) [AR211C102K4R](#) [AR151C103K4R](#) [AR305C474K4R](#) [AR155A102K4R](#)
[AR205A102K4R](#) [AR211A101K4R](#) [AR401C105K4R](#) [AR211C104K4R](#) [AR155C104K4R](#) [AR201C104K4R](#)
[AR151C102K4R](#) [AR201A102K4R](#) [AR201C102K4R](#) [AR155C103K4R](#) [AR201C103K4R](#) [AR205C224K4R](#)
[AR211A102K4R](#) [AR215F103K4RTR2](#) [AR215F473K4R](#) [AR155A101K4R](#) [AR205F104K4R](#) [AR201C333K4RTR2](#)
[AR215F472K4RTR1](#) [AR201C103K4RTR2](#) [AR201C472K4RTR2](#) [AR205F102K4RTR2](#) [AR205F103K4RTR2](#)
[AR205F104K4RTR2](#) [AR205F334K4R](#) [AR211A471J4R](#) [AR211A471J4RTR2](#) [AR211C102K4RTR2](#)
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[AR205F472K4R](#) [AR215F472K4R](#) [AR215C393K4R](#) [AR155A471K4RTR1](#) [AR215F473K4RTR1](#) [AR215A822K4RTR1](#)
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[AR211C682K4RTR1](#) [AR211A391K4R](#) [AR215C223K4R](#) [AR155A331K4R](#) [AR215A151K4RTR1](#) [AR201C152K4RTR1](#)
[AR155A1R0D4R](#) [AR201A152K4RTR1](#) [AR201A150K4RTR1](#) [AR201A151K4RTR1](#) [AR211C333K4RTR1](#)
[AR155A151K4RTR1](#) [AR201C393K4R](#) [AR205C393K4R](#) [AR201C153K4RTR1](#) [AR155A391K4R](#) [AR151C682K4RTR1](#)
[AR211C152K4RTR1](#) [AR201C473K4RTR1](#) [AR215A150K4RTR1](#) [AR211C683K4RTR1](#) [AR151C681K4RTR1](#)
[AR211C333K4R](#)