EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

RADIAL LEADS

SkyCap®/AR Automotive Series - C0G (NPO) Dielectric

GENERAL INFORMATION

AR Series

Conformally Coated Radial Leaded MLC

Temperature Coefficients: C0G (NPO)

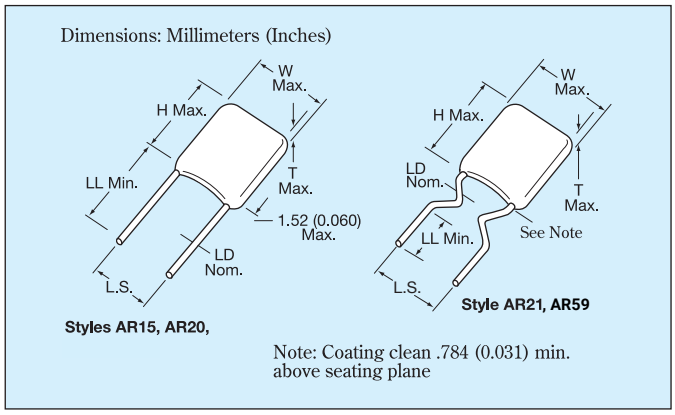
200, 100, 50 Volts

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

Temperature Range: up to 125ºC



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

HOW TO ORDER

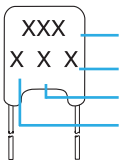
AR21	5	A	104	J	4	R	TR1
Style	**Voltage**	**Temperature Coefficient**	**Capacitance**	**Capacitance Tolerance**	**Failure Rate**	**Leads**	**Packaging**
	5 = 50V 1 = 100V 2 = 200V	A = C0G (NP0)	First two digits are the significant figures of capacitance. Third digit indicates the additional number of 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 (NPO): C = ±.25pF D = ±.5pF F = ±1% (>50pF only) G = ±2% (>25pF only) J = ±5% K = ±10%	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 35-36

RoHS COMPLIANT

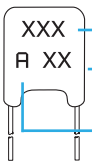
MARKING

FRONT



Capacitance Code
Tolerance Code
Voltage Code
Temp. Char. Code

BACK



3 Digit Date Code
Lot Code
KYOCERA AVX Logo

PACKAGING REQUIREMENTS

	Quantity per Bag
AR15, 20, 21, 07, 29, 59	1000 Pieces

Note: AR15, 20, 21, 07, 29, and 59 are available on tape and reel per EIA specifications RS-468. See pages 35 and 36.

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

Style		AR15			AR20			AR21		
"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 KYOCERA 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.

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RADIAL LEADS

SkyCap®/AR Automotive Series - X7R Dielectric

GENERAL INFORMATION

AR Series

Conformally Coated Radial Leaded MLC

Temperature Coefficients: X7R

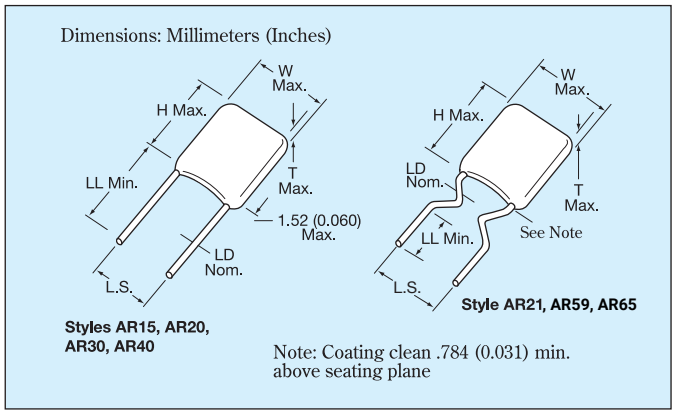
100, 50 Volts

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

Temperature Range: up to 125ºC



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

HOW TO ORDER

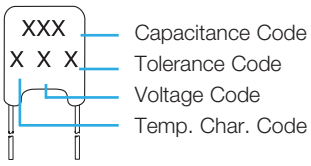
AR21	5	C	104	M	4	R	TR1
Style	**Voltage** 5 = 50V 1 = 100V	**Temperature Coefficient** C = X7R	**Capacitance** First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF.)	**Capacitance Tolerance** X7R: J = ±5% K = ±10% M = ±20%	**Failure Rate** 4 = AEC-Q200	**Leads** R = RoHS	**Packaging** 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

RoHS COMPLIANT

MARKING

FRONT



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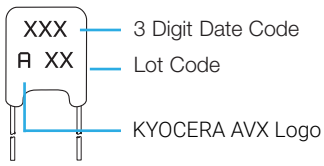

PACKAGING REQUIREMENTS

	Quantity per Bag
AR07, 15, 20, 29, 21, 59, 30, 65	1000 Pieces
AR40, 75	500 Pieces

Note: All styles above are available on tape and reel per EIA specifications RS-468. See pages 33 and 34.

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SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic — Dimensions: Millimeters (Inches)

Style		AR15		AR20		AR21		AR30		AR40	
"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	WVDC 50	WVDC 100	WVDC 50	WVDC 100	WVDC 50	WVDC 100	WVDC 50	WVDC 100	WVDC 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 KYOCERA 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.

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RADIAL LEADS

SkyCap®/AR Automotive Series - X7R Dielectric High Voltage

GENERAL INFORMATION

AR Series

Conformally Coated Radial Leaded MLC

Temperature Coefficients: X7R

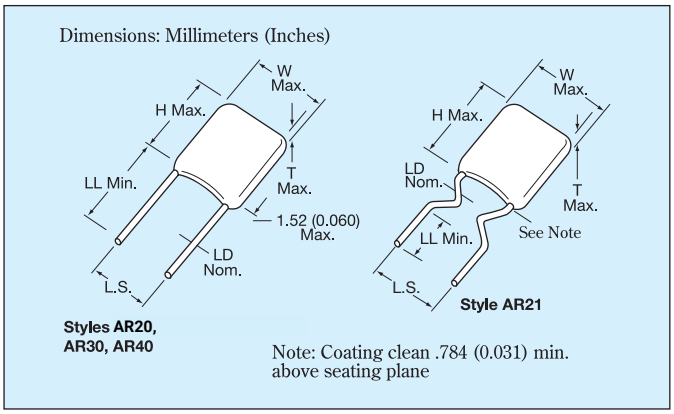
3000, 2000, 1000 Volts

Case Material: Epoxy

Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

Temperature Range: up to 125°C



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

HOW TO ORDER

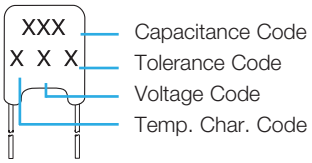
AR21	A	C	104	M	4	R	TR1
Style	**Voltage**	**Temperature Coefficient**	**Capacitance**	**Capacitance Tolerance**	**Failure Rate**	**Leads**	**Packaging**
	A = 1000V G = 2000V H = 3000V	C = X7R	First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF.)	X7R: 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

RoHS COMPLIANT

MARKING

FRONT



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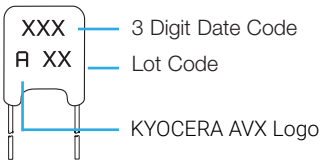

PACKAGING REQUIREMENTS

	Quantity per Bag
AR20, 21, 30	1000 Pieces
AR40	500 Pieces

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

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SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

	Style	AR20	AR21	AR22	AR27	AR30	
	"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.

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RADIAL LEADS

SkyCap®/AR Automotive Series - X8R Dielectric

GENERAL INFORMATION

AR Series

Conformally Coated Radial Leaded MLC

Temperature Coefficients: X8R

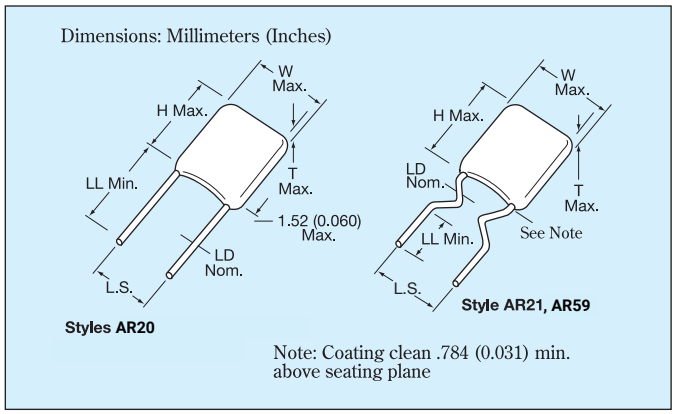
50 Volts

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

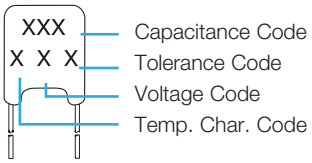
AR21	5	F	104	M	4	R	TR1
Style	**Voltage**	**Temperature Coefficient**	**Capacitance**	**Capacitance Tolerance**	**Failure Rate**	**Leads**	**Packaging**
	5 = 50V	F = X8R	First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 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

RoHS COMPLIANT

MARKING

FRONT



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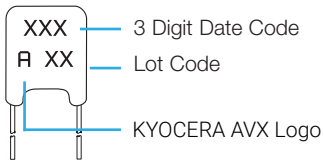

PACKAGING REQUIREMENTS

	Quantity per Bag
AR29, 20, 21, 59	1000 Pieces

Note: AR29, 20, 21, 59 are available on tape and reel per EIA specifications RS-468. See pages 33 and 34.

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SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

Style		AR20			AR21		
"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 KYOCERA 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.

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RADIAL LEADS

SkyCap®/AR Automotive Series - X8L Dielectric

GENERAL INFORMATION

AR Series

Conformally Coated Radial Leaded MLC

Temperature Coefficients: X8L

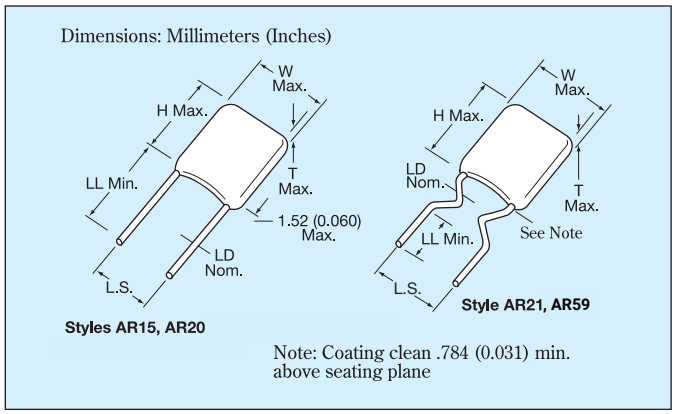
100, 50 Volts

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

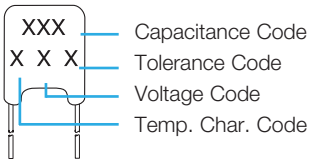
AR21	5	L	104	M	4	R	TR1
Style	**Voltage**	**Temperature Coefficient**	**Capacitance**	**Capacitance Tolerance**	**Failure Rate**	**Leads**	**Packaging**
	5 = 50V	L = X8L	First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF.)	X8L: 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

RoHS COMPLIANT

MARKING

FRONT



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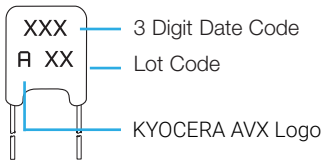

PACKAGING REQUIREMENTS

	Quantity per Bag
AR07, 15, 20, 29, 21, 59	1000 Pieces

Note: AR07, 15, 20, 29, 21, 59 are available on tape and reel per EIA specifications RS-468. See pages 33 and 34.

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STYLES AND CAPACITANCE SPECIFICATIONS

EIA Chacteristics

Style		AR15		AR20		AR21	
"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**						
1,500,000	AR_____L155K4R						
2,200,000	AR_____L225K4R						
3,300,000	**AR_____L335K4R**						

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