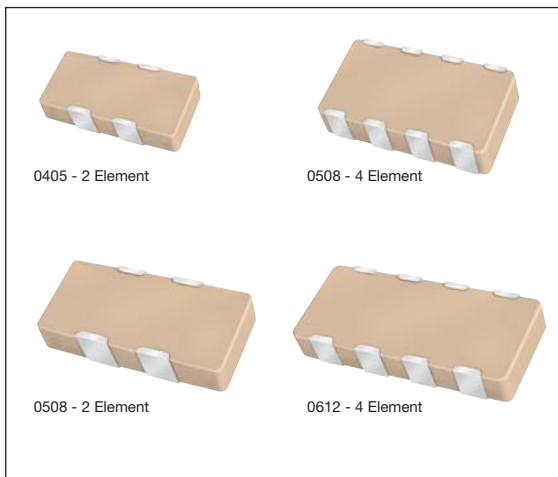


Capacitor Array



Capacitor Array (IPC)



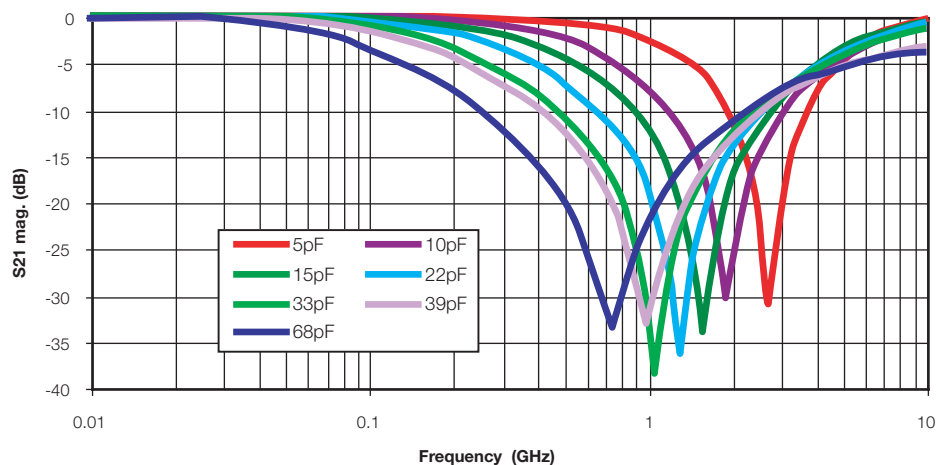
GENERAL DESCRIPTION

AVX is the market leader in the development and manufacture of capacitor arrays. The smallest array option available from AVX, the 0405 2-element device, has been an enormous success in the Telecommunications market. The array family of products also includes the 0612 4-element device as well as 0508 2-element and 4-element series, all of which have received widespread acceptance in the marketplace.

AVX capacitor arrays are available in X5R, X7R and NP0 (C0G) ceramic dielectrics to cover a broad range of capacitance values. Voltage ratings from 6.3 Volts up to 100 Volts are offered. AVX also now offers a range of automotive capacitor arrays qualified to AEC-Q200 (see separate table).

Key markets for capacitor arrays are Mobile and Cordless Phones, Digital Set Top Boxes, Computer Motherboards and Peripherals as well as Automotive applications, RF Modems, Networking Products, etc.

AVX Capacitor Array - W2A41A***K
S21 Magnitude



HOW TO ORDER

W	2	A	4	3	C	103	M	A	T	2A
Style W = RoHS L = SnPb	Case Size 1 = 0405 2 = 0508 3 = 0612 5 = 0306	Array	Number of Caps	Voltage 6 = 6V Z = 10V Y = 16V 3 = 25V 5 = 50V 1 = 100V	Dielectric A = NP0 C = X7R D = X5R	Capacitance Code 2 Sig Digits + Number of Zeros	Capacitance Tolerance J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	Failure Rate A = Commercial 4 = Automotive	Termination Code T = Plated Ni and Sn** Z = FLEXITERM** B = 5% min lead X = FLEXITERM® with 5% min lead	Packaging & Quantity Code 2A = 7" Reel (4000) 4A = 13" Reel (10000) 2F = 7" Reel (1000)

Not RoHS Compliant

**RoHS compliant



NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.



Capacitor Array

Capacitance Range – NP0/C0G

SIZE		0405			0508				0508				0612			
# Elements		2			2				4				4			
Soldering		Reflow Only			Reflow/Wave				Reflow/Wave				Reflow/Wave			
Packaging		All Paper			All Paper				Paper/Embossed				Paper/Embossed			
Length	mm (in.)	1.00 ± 0.15 (0.039 ± 0.006)			1.30 ± 0.15 (0.051 ± 0.006)				1.30 ± 0.15 (0.051 ± 0.006)				1.60 ± 0.150 (0.063 ± 0.006)			
Width	mm (in.)	1.37 ± 0.15 (0.054 ± 0.006)			2.10 ± 0.15 (0.083 ± 0.006)				2.10 ± 0.15 (0.083 ± 0.006)				3.20 ± 0.20 (0.126 ± 0.008)			
Max. Thickness	mm (in.)	0.66 (0.026)			0.94 (0.037)				0.94 (0.037)				1.35 (0.053)			
WVDC		16	25	50	16	25	50	100	16	25	50	100	16	25	50	100
1R0	Cap															
1R2	(pF)															
1R5	1.5															
1R8	1.8															
2R2	2.2															
2R7	2.7															
3R3	3.3															
3R9	3.9															
4R7	4.7															
5R6	5.6															
6R8	6.8															
8R2	8.2															
100	10															
120	12															
150	15															
180	18															
220	22															
270	27															
330	33															
390	39															
470	47															
560	56															
680	68															
820	82															
101	100															
121	120															
151	150															
181	180															
221	220															
271	270															
331	330															
391	390															
471	470															
561	560															
681	680															
821	820															
102	1000															
122	1200															
152	1500															
182	1800															
222	2200															
272	2700															
332	3300															
392	3900															
472	4700															
562	5600															
682	6800															
822	8200															

Capacitor Array



Capacitance Range – X7R/X5R

SIZE	0306	0405	0508	0508	0612
# Elements	4	2	2	4	4
Soldering	Reflow Only	Reflow Only	Reflow/Wave	Reflow/Wave	Reflow/Wave
Packaging	All Paper	All Paper	All Paper	Paper/Embossed	Paper/Embossed
Length mm (in.)	1.60 ± 0.15 (0.063 ± 0.006)	1.00 ± 0.15 (0.039 ± 0.006)	1.30 ± 0.15 (0.051 ± 0.006)	1.30 ± 0.15 (0.051 ± 0.006)	1.60 ± 0.150 (0.063 ± 0.006)
Width mm (in.)	0.81 ± 0.15 (0.032 ± 0.006)	1.37 ± 0.15 (0.054 ± 0.006)	2.10 ± 0.15 (0.083 ± 0.006)	2.10 ± 0.15 (0.083 ± 0.006)	3.20 ± 0.20 (0.126 ± 0.008)
Max. Thickness mm (in.)	0.50 (0.020)	0.66 (0.026)	0.94 (0.037)	0.94 (0.037)	1.35 (0.053)
WVDC	6 10 16 25	6 10 16 25 50	6 10 16 25 50 100	6 10 16 25 50 100	6 10 16 25 50 100
101 Cap 100 (pF)					
121 120 (pF)					
151 150					
181 180					
221 220					
271 270					
331 330					
391 390					
471 470					
561 560					
681 680					
821 820					
102 1000					
122 1200					
152 1500					
182 1800					
222 2200					
272 2700					
332 3300					
392 3900					
472 4700					
562 5600					
682 6800					
822 8200					
103 Cap 0.010 (μF)					
123 0.012 (μF)					
153 0.015					
183 0.018					
223 0.022					
273 0.027					
333 0.033					
393 0.039					
473 0.047					
563 0.056					
683 0.068					
823 0.082					
104 0.10					
124 0.12					
154 0.15					
184 0.18					
224 0.22					
274 0.27					
334 0.33					
474 0.47					
564 0.56					
684 0.68					
824 0.82					
105 1.0					
125 1.2					
155 1.5					
185 1.8					
225 2.2					
335 3.3					
475 4.7					
106 10					
226 22					
476 47					
107 100					

☐ = Currently available X7R

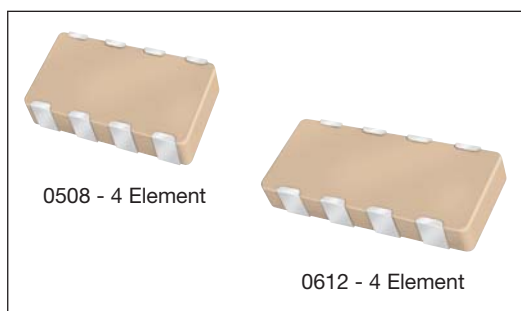
☐ = Currently available X5R

▨ = Under development X7R, contact factory for advance samples

▨ = Under development X5R, contact factory for advance samples



Automotive Capacitor Array (IPC)



As the market leader in the development and manufacture of capacitor arrays AVX is pleased to offer a range of AEC-Q200 qualified arrays to compliment our product offering to the Automotive industry. Both the AVX 0612 and 0508 4-element capacitor array styles are qualified to the AEC-Q200 automotive specifications.

AEC-Q200 is the Automotive Industry qualification standard and a detailed qualification package is available on request.

All AVX automotive capacitor array production facilities are certified to ISO/TS 16949:2002.

HOW TO ORDER

W	3	A	4	Y	C	104	K	4	T	2A
Style W = RoHS L = SnPb	Case Size 1 = 0405 2 = 0508 3 = 0612	Array	Number of Caps	Voltage Z = 10V Y = 16V 3 = 25V 5 = 50V 1 = 100V	Dielectric A = NP0 C = X7R F = X8R	Capacitance Code (In pF) Significant Digits + Number of Zeros e.g. 10 μ F=106	Capacitance Tolerance *J = $\pm 5\%$ *K = $\pm 10\%$ M = $\pm 20\%$	Failure Rate 4 = Automotive	Terminations T = Plated Ni and Sn** Z = FLEXITERM®** B = 5% min lead X = FLEXITERM® with 5% min lead	Packaging & Quantity Code 2A = 7" Reel (4000) 4A = 13" Reel (10000) 2F = 7" Reel (1000)

**RoHS compliant

*Contact factory for availability by part number for K = $\pm 10\%$ and J = $\pm 5\%$ tolerance.

NP0/COG												
SIZE	0405	0508	0508				0612					
No. of Elements	2	2	4				4					
WVDC	50	50	16	25	50	100	16	25	50	100		
1R0 Cap 1.0												
1R2 (pF) 1.2												
1R5 1.5												
1R8 1.8												
2R2 2.2												
2R7 2.7												
3R3 3.3												
3R9 3.9												
4R7 4.7												
5R6 5.6												
6R8 6.8												
8R2 8.2												
100 10												
120 12												
150 15												
180 18												
220 22												
270 27												
330 33												
390 39												
470 47												
560 56												
680 68												
820 82												
101 100												
121 120												
151 150												
181 180												
221 220												
271 270												
331 330												
391 390												
471 470												
561 560												
681 680												
821 820												
102 1000												
122 1200												
152 1500												
182 1800												
222 2200												
272 2700												
332 3300												
392 3900												
472 4700												
562 5600												
682 6800												
822 8200												

NP0/COG
Under development

X7R												
SIZE	0508				0612				0405			
No. of Elements	2				4				2			
WVDC	16	25	50	100	16	25	50	100	10	16	25	50
101 Cap 100												
121 (pF) 120												
151 150												
181 180												
221 220												
271 270												
331 330												
391 390												
471 470												
561 560												
681 680												
821 820												
102 1000												
122 1200												
152 1500												
182 1800												
222 2200												
272 2700												
332 3300												
392 3900												
472 4700												
562 5600												
682 6800												
822 8200												
103 Cap 0.010												
123 (pF) 0.012												
153 0.015												
183 0.018												
223 0.022												
273 0.027												
333 0.033												
393 0.039												
473 0.047												
563 0.056												
683 0.068												
823 0.082												
104 0.10												
124 0.12												
154 0.15												
224 0.22												

X7R
X8R
Under development

Not RoHS Compliant

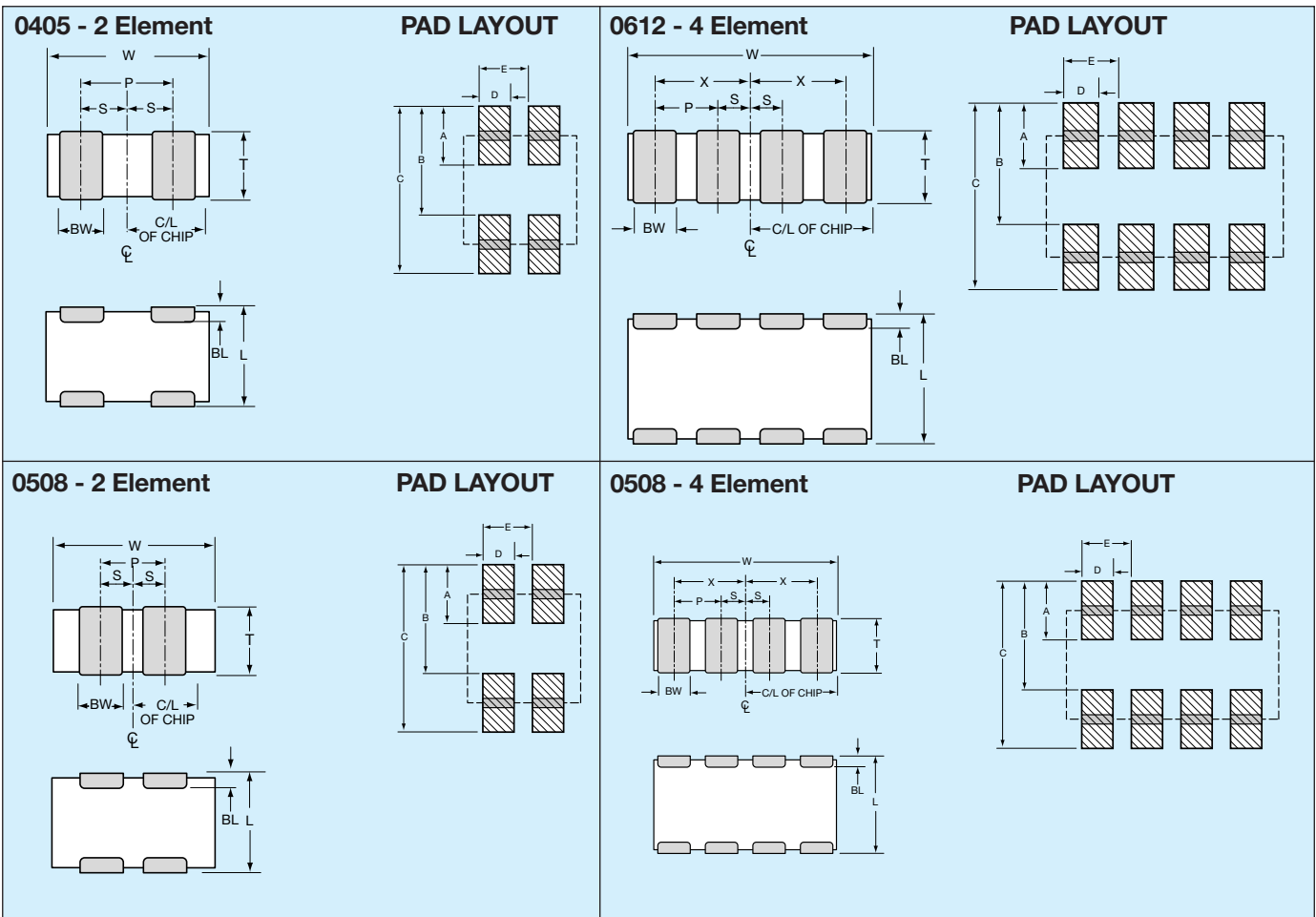
LEAD-FREE
LEAD-FREE COMPATIBLE
COMPONENT

RoHS
COMPLIANT

For RoHS compliant products,
please select correct termination style.

PART & PAD LAYOUT DIMENSIONS

millimeters (inches)



PART DIMENSIONS

0405 - 2 Element

L	W	T	BW	BL	P	S
1.00 ± 0.15 (0.039 ± 0.006)	1.37 ± 0.15 (0.054 ± 0.006)	0.66 MAX (0.026 MAX)	0.36 ± 0.10 (0.014 ± 0.004)	0.20 ± 0.10 (0.008 ± 0.004)	0.64 REF (0.025 REF)	0.32 ± 0.10 (0.013 ± 0.004)

0508 - 2 Element

L	W	T	BW	BL	P	S
1.30 ± 0.15 (0.051 ± 0.006)	2.10 ± 0.15 (0.083 ± 0.006)	0.94 MAX (0.037 MAX)	0.43 ± 0.10 (0.017 ± 0.004)	0.33 ± 0.08 (0.013 ± 0.003)	1.00 REF (0.039 REF)	0.50 ± 0.10 (0.020 ± 0.004)

0508 - 4 Element

L	W	T	BW	BL	P	X	S
1.30 ± 0.15 (0.051 ± 0.006)	2.10 ± 0.15 (0.083 ± 0.006)	0.94 MAX (0.037 MAX)	0.25 ± 0.06 (0.010 ± 0.003)	0.20 ± 0.08 (0.008 ± 0.003)	0.50 REF (0.020 REF)	0.75 ± 0.10 (0.030 ± 0.004)	0.25 ± 0.10 (0.010 ± 0.004)

0612 - 4 Element

L	W	T	BW	BL	P	X	S
1.60 ± 0.20 (0.063 ± 0.008)	3.20 ± 0.20 (0.126 ± 0.008)	1.35 MAX (0.053 MAX)	0.41 ± 0.10 (0.016 ± 0.004)	0.18 ± 0.08 (0.007 ± 0.003)	0.76 REF (0.030 REF)	1.14 ± 0.10 (0.045 ± 0.004)	0.38 ± 0.10 (0.015 ± 0.004)

PAD LAYOUT DIMENSIONS

0405 - 2 Element

A	B	C	D	E
0.46 (0.018)	0.74 (0.029)	1.20 (0.047)	0.30 (0.012)	0.64 (0.025)

0508 - 2 Element

A	B	C	D	E
0.68 (0.027)	1.32 (0.052)	2.00 (0.079)	0.46 (0.018)	1.00 (0.039)

0508 - 4 Element

A	B	C	D	E
0.56 (0.022)	1.32 (0.052)	1.88 (0.074)	0.30 (0.012)	0.50 (0.020)

0612 - 4 Element

A	B	C	D	E
0.89 (0.035)	1.65 (0.065)	2.54 (0.100)	0.46 (0.018)	0.76 (0.030)