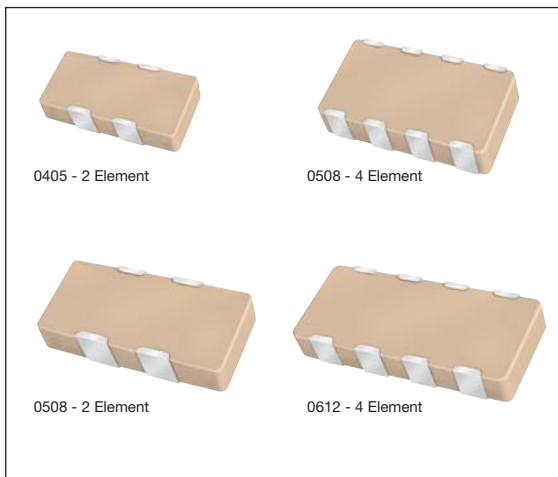


Capacitor Array



Capacitor Array (IPC)



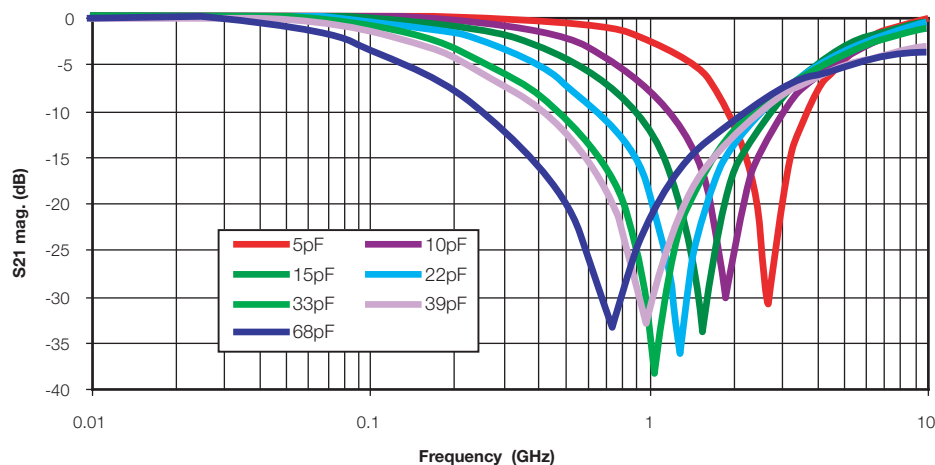
GENERAL DESCRIPTION

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



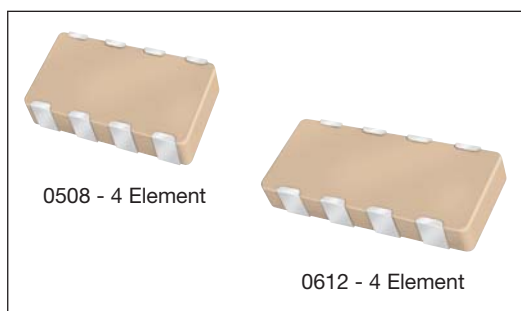
Capacitance Range – X7R/X5R

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	1.60 ± 0.15				1.00 ± 0.15					1.30 ± 0.15						1.30 ± 0.15						1.60 ± 0.150					
	(in.)	(0.063 ± 0.006)				(0.039 ± 0.006)					(0.051 ± 0.006)						(0.051 ± 0.006)						(0.063 ± 0.006)					
Width	mm	0.81 ± 0.15				1.37 ± 0.15					2.10 ± 0.15						2.10 ± 0.15						3.20 ± 0.20					
	(in.)	(0.032 ± 0.006)				(0.054 ± 0.006)					(0.083 ± 0.006)						(0.083 ± 0.006)						(0.126 ± 0.008)					
Max. Thickness	mm	0.50				0.66					0.94						0.94						1.35					
	(in.)	(0.020)				(0.026)					(0.037)						(0.037)						(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																										
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	(µF)	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																										
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 2R2 2R7	1.8 2.2 2.7											
3R3 3R9 4R7	3.3 3.9 4.7											
5R6 6R8 8R2	5.6 6.8 8.2											
100 120 150	10 12 15											
180 220 270	18 22 27											
330 390 470	33 39 47											
560 680 820	56 68 82											
101 121 151	100 120 150											
181 221 271	180 220 270											
331 391 471	330 390 470											
561 681 821	560 680 820											
102 122 152	1000 1200 1500											
182 222 272	1800 2200 2700											
332 392 472	3300 3900 4700											
562 682 822	5600 6800 8200											

NP0/COG
Under development

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

X7R
X8R
Under development

Not RoHS Compliant

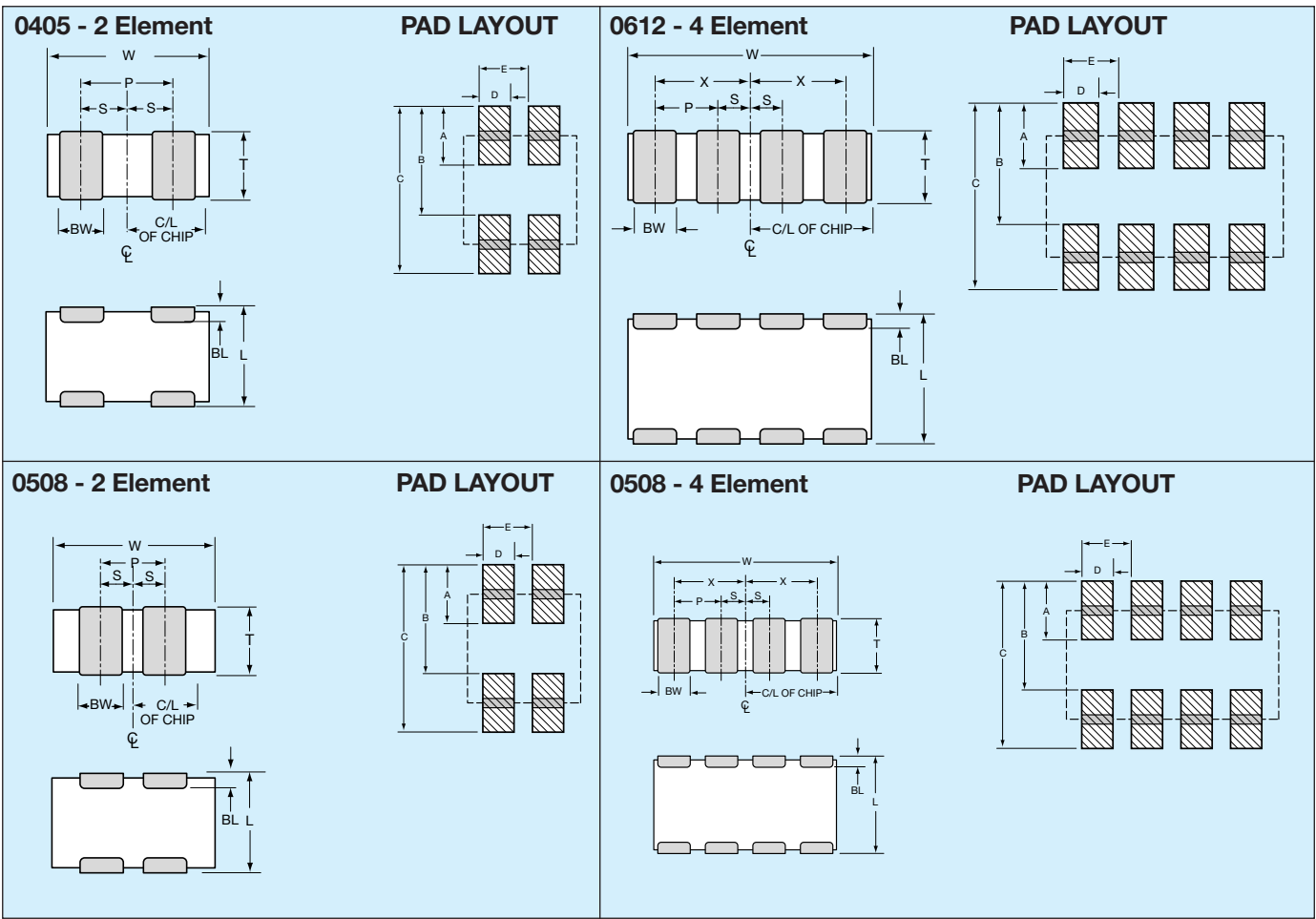
LEAD-FREE
LEAD-FREE COMPATIBLE
COMPONENT

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)