AVX Ceramic Chip Capacitors

AVX W2F / W3F SERIES FEEDTHRU 0805 / 1206 CAPACITORS

General Description:

- AVX's line of feedthru capacitors are ideal choices for EMI suppression, broadband I/O filtering or Vcc power line conditioning
- The unique construction of a feedthru capacitor provides low parallel inductance and offers excellent decoupling capability for all high di/dt environments and provides significant noise reduction in digital circuits to <5GHz

Specifications:

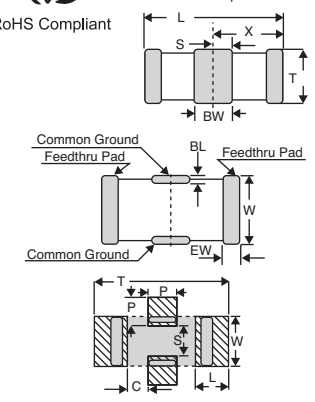
- Current rating: 300mA
- Insulation resistance: 1000MΩ
- DC resistance: <0.6Ω
- Operating temperature range: -55°C to +125°C

	Chip Dimensions: mm (in.)								Pad Layout Dimensions: mm (in.)					
	L	W	T Max.	BW	BL	EW	X	S	T	P	S	W	L	C
0805	2.01 (0.079)	1.25 (0.049)	1.14 (0.045)	0.46 (0.018)	0.18 (0.007)	0.25 (0.010)	1.02 (0.040)	0.23 (0.009)	3.45 (0.136)	0.51 (0.020)	0.76 (0.030)	1.27 (0.050)	1.02 (0.040)	0.46 (0.018)
1206	3.20 (0.126)	1.60 (0.063)	1.27 (0.050)	0.89 (0.035)	0.18 (0.007)	0.38 (0.015)	1.60 (0.063)	0.46 (0.018)	4.54 (0.179)	0.94 (0.037)	1.02 (0.040)	1.65 (0.065)	1.09 (0.043)	0.71 (0.028)

MOUSER STOCK NO.	AVX Part No.	Dielectric	Value (μF)	Voltage	Price Each 1	Price Each 50	Price Each 100	Reel Quantity	Price Per Piece
Style 0805									
581-W2F11A2208AT1F	W2F11A2208AT1F	NP0	22	100	.36	.32	.29	1000	.145
581-W2F11A4708AT1F	W2F11A4708AT1F	NP0	47	100	.36	.32	.29	1000	.145
581-W2F11A4708AT1A	W2F11A4708AT1A	NP0	47	100	.36	.32	.29	4000	.14
581-W2F11A1018AT1F	W2F11A1018AT1F	NP0	100	100	.36	.32	.29	1000	.145
581-W2F15C1028AT1A	W2F15C1028AT1A	X7R	100	50	.30	.29	.28	4000	.142
581-W2F11A2218AT1F	W2F11A2218AT1F	NP0	220	100	.36	.32	.29	1000	.145
581-W2F11A4718AT1F	W2F11A4718AT1F	NP0	470	100	.36	.32	.29	1000	.145
581-W2F11A4718AT1A	W2F11A4718AT1A	NP0	470	100	.36	.32	.29	4000	.14
581-W2F15C1028AT1F	W2F15C1028AT1F	X7R	1000	50	.37	.32	.28	1000	.183
581-W2F15C2228AT1F	W2F15C2228AT1F	X7R	2200	50	.37	.32	.28	1000	.183
581-W2F15C4728AT1F	W2F15C4728AT1F	X7R	4700	50	.30	.29	.28	1000	.183
581-W2F15C1038AT1F	W2F15C1038AT1F	X7R	.01μF	50	.68	.58	.53	1000	.194
581-W2F15C2238AT1F	W2F15C2238AT1F	X7R	.022μF	50	.37	.32	.28	1000	.183
581-W2F15C4738AT1F	W2F15C4738AT1F	X7R	.047μF	50	.30	.29	.28	1000	.183
Style 1206									
581-W3F11A2208AT1F	W3F11A2208AT1F	NP0	22	100	.37	.29	.26	1000	.17
581-W3F11A2208AT1A	W3F11A2208AT1A	NP0	22	100	.37	.29	.26	4000	.14
581-W3F11A4708AT1F	W3F11A4708AT1F	NP0	47	100	.37	.29	.26	1000	.17
581-W3F11A1018AT1F	W3F11A1018AT1F	NP0	100	100	.37	.29	.26	1000	.17
581-W3F11A2218AT1F	W3F11A2218AT1F	NP0	220	100	.37	.29	.26	1000	.17
581-W3F11A4718AT1F	W3F11A4718AT1F	NP0	470	100	.37	.29	.26	1000	.17
581-W3F15C1028AT1F	W3F15C1028AT1F	X7R	1000	50	.84	.32	.27	1000	.204
581-W3F15C1028AT1A	W3F15C1028AT1A	X7R	1000	50	.84	.32	.27	4000	.166
581-W3F15C2228AT1F	W3F15C2228AT1F	X7R	2200	50	.84	.46	.27	1000	.189
581-W3F15C4728AT1F	W3F15C4728AT1F	X7R	4700	50	.53	.47	.42	1000	.26
581-W3F15C1038AT1F	W3F15C1038AT1F	X7R	.01μF	50	.53	.47	.42	1000	.26
581-W3F15C2238AT1F	W3F15C2238AT1F	X7R	.022μF	50	.84	.32	.27	1000	.204
581-W3F15C2238AT1A	W3F15C2238AT1A	X7R	0.022	50	.84	.55	.50	4000	.139
581-W3F15C4738AT1F	W3F15C4738AT1F	X7R	.047μF	50	.53	.47	.42	1000	.26

RoHS Compliant

W2F/W3F Series FeedThru 0805/1206 Capacitors



AVX SMD LOW INDUCTANCE CAPACITORS IDC (INTERDIGITATED CAPACITORS)

General Description:

- Very low equivalent series inductance (ESL), high speed decoupling capacitor in 0612 and 0508 case size
- Measured inductances of 60pH (for 0612) and 50pH (for 0508) are the lowest in the FR4 mountable device family
- Opposing current flow creates opposing magnetic fields causing the fields to cancel, effectively reducing the equivalent series inductance
- Perfect solution for decoupling high speed microprocessors by allowing the engineers to lower the power delivery inductance of the entire system through the use of eight vias
- Overall reduction in decoupling components due to very low series inductance and high capacitance

NEW PRODUCT

Specifications:

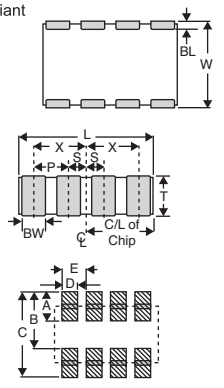
- Capacitance tolerance: ±20% preferred (10% available)
- Operating temperature range: X7R= -55°C to +125°C, X5R= -55°C to +85°C
- Temperature coefficient: ±15% (0VDC)
- Dissipation factor: 4V, 6.3V = 6.5% max; 10V = 5.0% max; 16V = 3.5% max , or 1,000MΩ per μF min., whichever is less
- Dielectric strength: No problems observed after 2.5 x RVDC for 5 seconds at 50mA max current
- CTE (ppm/C): 12.0

	Chip Dimensions: mm (in.)								Pad Layout Dimensions: mm (in.)				
	L	W	T Max.	BW	BL	P (Ref.)	X	S	A	B	C	D	E
0306	0.82 (0.032)	1.60 (0.063)	-	0.25 (0.010)	0.20 (0.008)	0.40 (0.015)	-	-	0.38 (0.015)	0.89 (0.035)	1.27 (0.050)	0.20 (0.008)	0.40 (0.015)
0508	2.03 (0.080)	1.27 (0.050)	0.965 (0.038)	0.254 (0.010)	0.18 (0.007)	0.50 (0.020)	0.76 (0.030)	0.254 (0.010)	0.64 (0.025)	1.27 (0.050)	1.91 (0.075)	0.28 (0.011)	0.50 (0.020)
0612	3.20 (0.126)	1.60 (0.063)	1.22 (0.048)	0.41 (0.016)	0.18 (0.007)	0.80 (0.031)	1.14 (0.045)	0.38 (0.015)	0.89 (0.035)	1.65 (0.065)	2.54 (0.100)	0.46 (0.018)	0.80 (0.031)

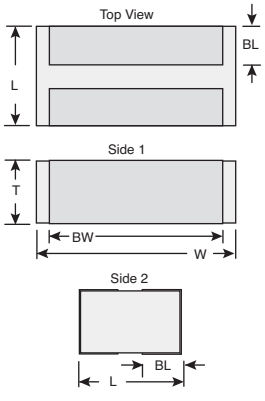
Style 0306												
581-W4L14Z104MAT1S	W4L14Z104MAT1S	X7S	0.10	4	3.66	3.08	2.47	1.42	4000	.68
581-W4L14Z224MAT1S	W4L14Z224MAT1S	X7S	0.22	4	3.66	3.08	2.47	1.42	4000	.68
581-W4L14Z474MAT1S	W4L14Z474MAT1S	X7S	0.47	4	3.66	3.08	2.47	1.42	4000	.68
Style 0508												
581-W2L1ZC104MAT1S	W2L1ZC104MAT1S	X7R	0.10	10	2.11	1.70	1.45	.93	4000	.52
581-W2L1YC104MAT1A	W2L1YC104MAT1A	X7R	0.10	16	2.11	1.70	1.45	.93	4000	.52
581-W2L16C224MAT1A	W2L16C224MAT1A	X7R	0.22	6.3	2.11	1.70	1.45	.93	4000	.52
581-W2L1ZC474MAT1A	W2L1ZC474MAT1A	X7R	0.47	10	2.47	2.28	2.00	1.23	4000	.54
581-W2L14C105MAT1A	W2L14C105MAT1A	X7R	1.0	4.0	4.00	2.25	1.80	1.44	4000	.64
581-W2L16C105MAT1A	W2L16C105MAT1A	X7R	1.0	6.3	2.77	2.24	1.78	1.27	4000	.68
581-W2L16D105MAT1A	W2L16D105MAT1A	X5R	1.0	6.3	2.77	2.24	1.78	1.27	4000	.68
581-W2L14Z105MAT1S	W2L14Z105MAT1S	X7S	1.0	4.0	3.15	3.04	2.73	1.57	4000	.76
Style 0612												
581-W3L1YC224MAT1S	W3L1YC224MAT1S	X7R	0.22	16	2.47	2.28	2.00	1.23	4000	.54
581-W3L1YC474MAT1A	W3L1YC474MAT1A	X7R	0.47	16	2.66	1.97	1.78	1.16	4000	.60
581-W3L1ZC105MAT1A	W3L1ZC105MAT1A	X7R	1.0	10	2.92	2.40	1.96	1.29	2000	.63
581-W3L1YC105MAT1A	W3L1YC105MAT1A	X7R	1.0	16	2.92	2.40	1.96	1.29	2000	.63
581-W3L16C225MAT1A	W3L16C225MAT1A	X7R	2.2	6.3	3.00	2.70	2.33	1.67	2000	.68
581-W3L14C225MAT1A	W3L14C225MAT1A	X7R	2.2	4.0	3.00	2.70	2.33	1.67	2000	.63
581-W3L16D225MAT1A	W3L16D225MAT1A	X5R	2.2	6.3	3.00	2.70	2.33	1.67	4000	.68
581-W3L14D335MAT1A	W3L14D335MAT1A	X5R	3.3	4.0	3.00	2.70	2.33	1.67	4000	.68

SMD Low Inductance Capacitors IDC (Interdigitated Capacitors)

RoHS Compliant



Low Inductance LGA Capacitors



AVX LOW INDUCTANCE LGA CAPACITORS

AVX has introduced a revolutionary new capacitor for low inductance LGA (land grid array) capacitors have virtually the equivalent high frequency performance of 8-terminal ICDs (Inter-Digitated Capacitors) but are built in a simplified 2 terminal package. This provide for lower manufacturing cost and easier handling and design. LGA are ideal for decoupling in semiconductor package-level and board-level applications.

NEW PRODUCT

	Chip Dimensions: mm (in.)				
	L	W	T Max.	BW	BL
0204	0.5 (19.5)	1.00 (40.0)	0.50 (19.5)	0.8 (31.0)	0.13 (5.00)
0306	0.76 (30.0)	1.60 (63.0)	0.50 (19.5)	1.50 (59.0)	0.28 (11.0)
0805	2.06 (0.081)	1.32 (0.052)	0.50 (0.020)	1.14 (0.045)	0.90 (0.035)

0204											
581-LG126D104MAT2S1	LG126D104MAT2S1	X5R	0.1	6.3	1.92	1.60	1.28	1.12	.96	2000	.80
581-LG126Z104MAT2S1	LG126Z104MAT2S1	X7S	0.1	6.3	3.52	2.82	2.08	1.20	.83	4000	.58
0306											
581-LG224Z334MAT2S1	LG224Z334MAT2S1	X7S	0.33	4	3.12	2.86	2.37	1.36	.95	4000	.66
581-LG224Z474MAT2S1	LG224Z474MAT2S1	X7S	0.47	4	3.12	2.86	2.51	1.45	1.00	4000	.70
581-LG226C103MAT2S1	LG226C103MAT2S1	X7R	0.01	6.3	3.12	2.86	2.40	1.38	.96	4000	.67
581-LG226C104MAT2S1	LG226C104MAT2S1	X7R	0.1	6.3	2.86	2.25	1.69	.97	.67	4000	.42
0805											
581-LGC26D105MAT2S1	LGC26D105MAT2S1	X5R	1	6.3	3.67	2.97	2.23	1.35	.98	4000	.72
581-LGC24D225MAT2S1	LGC24D225MAT2S1	X5R	2.2	4	3.67	2.97	2.23	1.35	.98	4000	.72

LGA Low Inductance Capacitors 0204/0306/0805 Land Grid Arrays