

# Decoupling and Polymer Aluminum Capacitors

RoHS Compliant This product is RoHS compliant.

## nichicon HIGH PERFORMANCE DECOUPLING CAPACITORS

Nichicon's Series F11 decoupling capacitors feature a layered conductive polymer aluminum design that provides ultra low ESR and ESL over a wide frequency for high performance large scale integration. Nichicon's F11 series capacitors feature a capacitance range of 47µF to 2400µF, a smaller package, and lower overall impedance, resulting in a reduction in the total number of conventional capacitors required, which decreases costs, saves valuable board real estate, and simplifies mounting. Applications include high performance CPU/GPUs, graphic cards, motherboards, car navigation, microprocessors, power IC, and the automotive industry.

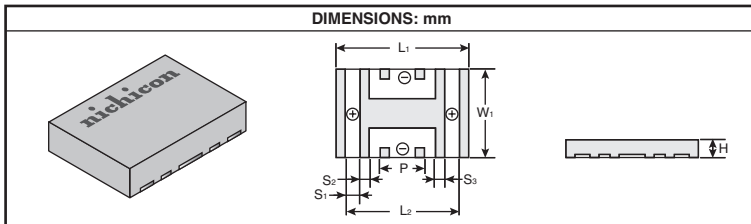
### Features:

- Higher Capacitance
- Low ESR, High ripple current
- Resin-molded Chip
- Designed for surface mounting on high density PC board
- Load life of 1000 hours at +105°C



### Specifications:

- Temporary Range: -55 to +105°C
- Tolerance: ±20% (at 120Hz)



Case Code	L1	L2	W1	W2	H	S1	S2	S3	P
D	8.5 ± 0.2	7.3 ± 0.2	5.3 ± 0.2	1.3 ± 0.3	2.0Max.	0.9 ± 0.2	0.6 ± 0.2	0.5 ± 0.2	3.3 ± 0.2
F	16.7 ± 0.2	15.6 ± 0.2	12.1 ± 0.2	3.3 ± 0.3	2.5Max.	1.5 ± 0.1	1.3 ± 0.1	1.5 ± 0.2	7.0 ± 0.2

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Nichicon Part Number	Voltage (V)	Value	Tolerance	Case Code	Leakage Current (µA)	ESR	Price Each				
								1	10	50	100	500
647-F110J476MD3	F110J476MD3	6.3	47	20%	D	29.6	20	3.14	2.53	1.91	1.45	1.27
647-F110G107MD3	F110G107MD3	2.5	100	20%	D	40	20	3.14	2.53	1.91	1.45	1.27
647-F110E227MD3	F110E227MD3	2.5	220	20%	D	55	20	3.50	3.10	1.91	1.45	1.27
647-F110E607MF3	F110E607MF3	2.5	600	20%	F	150	5.0	6.37	5.36	3.28	2.65	2.50
647-F110J607MF3	F110J607MF3	6.3	600	20%	F	378	5.0	6.37	5.36	3.28	2.65	2.50
647-F110G807MF3	F110G807MF3	2.5	800	20%	F	320	5.0	6.37	5.36	3.28	2.65	2.50
647-F110E128MF3	F110E128MF3	2.5	1200	20%	F	300	5.0	6.65	6.24	3.42	2.76	2.61

## UNITED CHEMI-CON UCC PXA NPCAP™ 105°C SMD SOLID POLYMER ALUMINUM SERIES

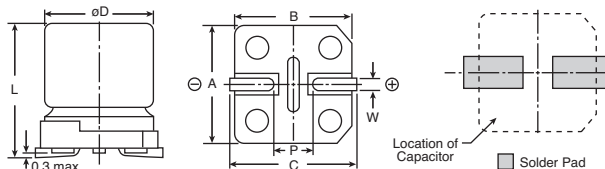
The PXA series are suitable for DC-DC converters, voltage regulators, and decoupling applications used in computer equipment.

### Specifications:

- Operating temperature: -55°C to +105°C
- Voltage range: 2.5 to 25VDC
- Capacitance range: 10 to 1200µF
- Capacitance tolerance: ±20%
- Rated lifetime: 2000 hours @ 105°C

### Features:

- High heat resistance to reflow soldering
- Solid polymer electrolyte
- Ultra low ESR
- Lead free design
- Solvent proof



For quantities of 200 and up, call for quote.

MOUSER STOCK NO.	United Chemi-Con Part No.	Value (µF)	Case Code	Case Dimensions: mm							Max ESR (mΩ) @ 20°C 100kHz	Rated Ripple (mArms) 100k-300kHz -55°C~+105°C	Price Each			
				oD	L	A	B	C	W	P			1	10	50	100
<b>2.5 Volts</b>																
661-PXA2.5VC221MF	APXA2R5ARA221MF55G	220	F55	6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9	25	2500	1.17	.997	.847	.735
661-PXA2.5VC561M	APXA2R5ARA561MH70G	560	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	23	3100	1.46	1.03	.928	.846
661-PXA2.5VC102M	APXA2R5ARA102MJ80G	1000	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	19	4240	2.00	1.85	1.72	1.61
<b>4 Volts</b>																
661-PXA4VC101MF	APXA4R0ARA101MF55G	100	F55	6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9	26	2450	1.17	1.00	.851	.738
661-PXA4VC221M	APXA4R0ARA221MH70G	220	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	25	3020	1.74	1.48	1.27	1.09
661-PXA4VC331M	APXA4R0ARA331MH70G	330	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	25	3020	1.46	1.03	.928	.846
661-PXA4VC471M	APXA4R0ARA471MJ80G	470	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	20	4130	2.61	2.22	1.88	1.63
661-PXA4VC681M	APXA4R0ARA681MJ80G	680	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	20	4130	1.42	1.21	1.03	.89
661-PXA4VC122M	APXA4R0ARA122MJC0G	1200	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	10	5500	2.06	1.63	1.58	1.51
<b>6.3 Volts</b>																
661-PXA6.3VC68RM	APXA6R3ARA680MF60G	68	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	27	2400	1.85	1.57	1.34	1.16
661-PXA6.3VC82RM	APXA6R3ARA820MF60G	82	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	27	2400	1.17	.99	.854	.737
661-PXA6.3VC101M	APXA6R3ARA101MF60G	100	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	27	2400	1.18	1.00	.856	.738
661-PXA6.3VC121M	APXA6R3ARA121MF60G	120	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	27	2400	1.17	1.00	.85	.738
661-PXA6.3VC151M	APXA6R3ARA151MH70G	150	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	25	3020	1.00	.85	.73	.63
661-PXA6.3VC221M	APXA6R3ARA221MH70G	220	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	25	3020	1.47	1.25	1.07	.92
661-PXA6.3VC331M	APXA6R3ARA331MJ80G	330	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	20	4130	1.84	1.36	1.21	1.13
661-PXA6.3VC391M	APXA6R3ARA391MHC0G	390	HCO	8	12	8.3	8.3	9	0.7-1.1	3.1	12	4770	2.09	1.72	1.52	.93
661-PXA6.3VC471M	APXA6R3ARA471MJ80G	470	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	20	4130	1.85	1.57	1.34	1.16
661-PXA6.3VC681M	APXA6R3ARA681MJC0G	680	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	10	5500	2.04	1.65	1.48	1.27
661-PXA6.3VC821M	APXA6R3ARA821MJC0G	820	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	10	5500	2.41	1.91	1.74	1.06
<b>10 Volts</b>																
661-PXA10VC47RM	APXA100ARA470MF60G	47	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	31	2250	2.59	2.10	1.88	1.62
661-PXA10VC56RM	APXA100ARA560MF55G	56	F55	6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9	31	2250	.95	.81	.69	.60
661-PXA10VC121M	APXA100ARA121MH70G	120	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	27	2800	1.48	1.26	1.08	.93
661-PXA10VC151M	APXA100ARA151MH70G	150	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	27	2800	1.79	1.52	1.30	1.12
661-PXA10VC271MH	APXA100ARA271MHC0G	270	HCO	8	12	8.3	8.3	9	0.7-1.1	3.1	14	4420	1.48	1.39	1.20	1.02
661-PXA10VC271M	APXA100ARA271MJ80G	270	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	24	3770	2.12	1.68	1.62	1.55
661-PXA10VC331MH	APXA100ARA331MHC0G	330	HCO	8	12	8.3	8.3	9	0.7-1.1	3.1	12	4420	1.48	1.39	1.20	1.02
661-PXA10VC331M	APXA100ARA331MJ80G	330	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	24	3770	2.80	2.27	2.03	1.75
661-PXA10VC471M	APXA100ARA471MJC0G	470	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	12	5300	1.25	1.02	.967	.903
661-PXA10VC561M	APXA100ARA561MJC0G	560	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	12	5300	2.40	2.25	1.95	1.65
<b>16 Volts</b>																
661-PXA16VC33RM	APXA160ARA330MF60G	33	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	37	2050	1.19	1.01	.867	.749
661-PXA16VC39RM	APXA160ARA390MF60G	39	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	37	2050	.81	.76	.65	.55
661-PXA16VC82RM	APXA160ARA820MH70G	82	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	30	2700	1.81	1.54	1.31	1.13
661-PXA16VC151M	APXA160ARA151MJ80G	150	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	26	3430	1.53	1.30	1.06	.885
661-PXA16VC181M	APXA160ARA181MJ80G	180	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	26	3430	2.11	1.71	1.53	1.32
661-PXA16VC221M	APXA160ARA221MJC0G	220	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	14	5050	2.20	2.07	1.79	1.35
661-PXA16VC331M	APXA160ARA331MJC0G	330	JC0	10	12.2	10.3	10.3	11	0.7-1.1	4.5	14	5050	2.80	2.27	2.03	1.76
<b>20 Volts</b>																
661-PXA20VC22RMF	APXA200ARA220MF55G	22	F55	6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9	50	1650	1.02	.87	.74	.64
661-PXA20VC22RM	APXA200ARA220MF60G	22	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	50	1650	1.00	.85	.73	.63
661-PXA20VC39RM	APXA200ARA390MH70G	39	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	45	2000	1.42	1.20	1.03	.89
661-PXA20VC47RM	APXA200ARA470MH70G	47	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	45	2000	1.42	1.20	1.03	.89
661-PXA20VC82RM	APXA200ARA820MJ80G	82	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	40	2500	1.50	1.34	1.16	.986
<b>25 Volts</b>																
661-PXA25VC10RM	APXA250ARA100MF60G	10	F60	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	65	1500	.98	.84	.74	.62
661-PXA25VC22RM	APXA250ARA220MH70G	22	H70	8	6.7	8.3	8.3	9	0.7-1.1	3.1	50	1800	1.43	1.21	1.04	.89
661-PXA25VC39RM	APXA250ARA390MJ80G	39	J80	10	7.7	10.3	10.3	11	0.7-1.1	4.5	45	2100	2.11	1.80	1.53	1.32