

# KEMET 125°C Low ESR Aluminum Organic Capacitors - AO-CAP



KEMET enters the world of aluminum capacitors with the introduction of the AO-CAP, designated the A700 Series, which has been targeted for power management applications. With aluminum as the anode material, aluminum oxide as the dielectric, and a conductive polymer to replace the wet electrolytic historically used in aluminum capacitors, KEMET has advanced beyond existing aluminum organic capacitors. The KEMET A700 Series AO-CAP is also an ideal alternative to high-capacitance ceramics. Its outstanding high frequency performance helps reduce component counts, cost-effectively saving board space.

The KEMET AO-CAP is totally free of lead with excellent surge current performance and long-term reliability. There is no recommended de-rating of application voltage to reduce failure rate. The operating temperature is -55°C to +125°C.

The KEMET AO-CAP is offered in the same EIA industry standard case sizes and packaging formats as KEMET's tantalum surface-mount capacitor lines.

### Features:

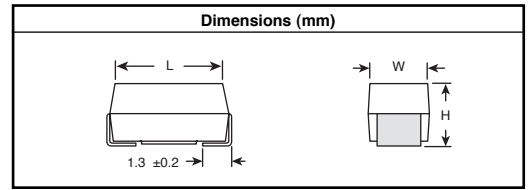
- Extremely low ESR
- High capacitance retention for superior performance at high operating frequencies
- Non-ignition Failure Mode
- No "dry-out" or "wear-out" related failure mechanism
- No voltage derating up to +125°C
- True Surface-mount capability
- Overall lower placement costs
- PB Free
- Self healing mechanism
- MSL3 Packaging

Other ESR Ratings Available

Please contact a Mouser Customer Service Representative

### Cross Reference Chart

KEMET AO	Panasonic SP
A700	EEF



Case Size		L	W	H	K Min.	F ± 0.1	S ± 0.2
KEMET	EIA						
V	7343-20	7.3±0.3	4.3±0.3	1.9±0.1	1.1	2.4	1.3
D	7343-31	7.3±0.3	4.3±0.3	2.8±0.3	1.3	2.4	1.3
X	7343-43	7.3±0.3	4.3±0.3	4.0±0.3	2.1	2.4	1.3



### A700 Series

MOUSER STOCK NO.	KEMET Part Number	Volt (DC)	Value (µF)	Case Code	ESR mΩ 100kHz 25°C Max	DCL @VR µA +25°C Max	Ripple Current A rms 100kHz Max	Price Each				MOUSER STOCK NO.	Reel Qty.	Price Each
								1	20	40	120			
80-A700V107M2E18	A700V107M002ATE018	2.0	100	V	18	12	3.9	1.91	1.69	1.46	1.35	80-A700V107M2E18-TR	1000	1.01
80-A700V107M002	A700V107M002ATE028	2.0	100	V	28	12	3.1	1.75	1.40	1.23	1.14	80-A700V107M002-TR	1000	.79
80-A700V127M2E18	A700V127M002ATE018	2.0	120	V	18	14.4	3.9	2.53	2.23	1.93	1.79	80-A700V127M2E18-TR	1000	1.34
80-A700V127M2E25	A700V127M002ATE025	2.0	120	V	25	14.4	3.3	2.32	2.04	1.77	1.64	80-A700V127M2E25-TR	1000	1.23
80-A700V127M2E28	A700V127M002ATE028	2.0	120	V	28	14.4	3.1	2.10	1.86	1.61	1.49	80-A700V127M2E28-TR	1000	1.11
80-A700V157M2E18	A700V157M002ATE018	2.0	150	V	18	18	3.9	1.91	1.69	1.46	1.35	80-A700V157M2E18-TR	1000	1.01
80-A700V157M002	A700V157M002ATE028	2.0	150	V	28	18	3.1	1.75	1.40	1.23	1.14	80-A700V157M002-TR	1000	.79
80-A700D187M2E15	A700D187M002ATE015	2.0	180	D	15	21.6	4.1	2.98	2.63	2.28	2.10	80-A700D187M2E15-TR	500	1.75
80-A700D187M2E18	A700D187M002ATE018	2.0	180	D	18	21.6	3.7	2.76	2.44	2.11	1.95	80-A700D187M2E18-TR	500	1.63
80-A700D227M2E15	A700D227M002ATE015	2.0	220	D	15	26.4	4.1	2.98	2.63	2.28	2.10	80-A700D227M2E15-TR	500	1.75
80-A700D227M002	A700D227M002ATE018	2.0	220	D	18	26.4	3.7	3.25	2.60	2.28	2.11	80-A700D227M002-TR	500	1.63
80-A700X337M2E10	A700X337M002ATE010	2.0	330	X	10	39.6	4.7	4.04	3.56	3.09	2.85	80-A700X337M2E10-TR	500	2.38
80-A700X397M2E10	A700X397M002ATE010	2.0	390	X	10	46.8	4.7	4.04	3.56	3.09	2.85	80-A700X397M2E10-TR	500	2.38
80-A700X477M2E10	A700X477M002ATE010	2.0	470	X	10	56.4	4.7	4.46	3.94	3.41	3.15	80-A700X477M2E10-TR	500	2.63
80-A700V826M2R5E18	A700V826M2R5ATE018	2.5	82	V	18	12.3	3.9	2.53	2.23	1.93	1.79	80-A700V826M2R5E18-TR	1000	1.49
80-A700D157M2R5E15	A700D157M2R5ATE015	2.5	150	D	15	22.5	4.1	3.38	2.98	2.58	2.39	80-A700D157M2R5E15-TR	500	1.99
80-A700D187M2R5E15	A700D187M2R5ATE015	2.5	180	D	15	27	4.1	3.38	2.98	2.58	2.39	80-A700D187M2R5E15-TR	500	1.99
80-A700X227M2R5E10	A700X227M2R5ATE010	2.5	220	X	10	30.0	4.7	4.46	3.94	3.41	3.15	80-A700X227M2R5E10-TR	500	2.63
80-A700X337M2R5E10	A700X337M2R5ATE010	2.5	330	X	10	49.5	4.7	4.46	3.94	3.41	3.15	80-A700X337M2R5E10-TR	500	2.63
80-A700V826M4E18	A700V826M004ATE018	4.0	82	V	18	19.7	3.9	2.25	1.80	1.58	1.46	80-A700V826M4E18-TR	1000	1.01
80-A700V826M4E25	A700V826M004ATE025	4.0	82	V	25	19.7	3.3	2.00	1.60	1.40	1.30	80-A700V826M4E25-TR	1000	.90
80-A700V826M004	A700V826M004ATE028	4.0	82	V	28	19.7	3.1	1.75	1.40	1.23	1.14	80-A700V826M004-TR	1000	.79
80-A700D127M4E15	A700D127M004ATE015	4.0	120	D	15	28.8	4.1	3.50	2.80	2.45	2.28	80-A700D127M4E15-TR	500	1.75
80-A700D127M004	A700D127M004ATE018	4.0	120	D	18	28.8	3.7	3.25	2.60	2.28	2.11	80-A700D127M004-TR	500	1.63
80-A700D157M4E15	A700D157M004ATE015	4.0	150	D	15	36	4.1	3.50	2.80	2.45	2.28	80-A700D157M4E15-TR	500	1.75
80-A700D157M004	A700D157M004ATE018	4.0	150	D	18	36	3.7	3.25	2.60	2.28	2.11	80-A700D157M004-TR	500	1.63
80-A700D187M4E15	A700D187M004ATE015	4.0	180	D	15	43.2	4.1	3.98	3.18	2.78	2.58	80-A700D187M4E15-TR	500	1.99
80-A700D187M4E18	A700D187M004ATE018	4.0	180	D	18	43.2	3.7	3.73	2.98	2.61	2.42	80-A700D187M4E18-TR	500	1.86
80-A700X227M4E10	A700X227M004ATE010	4.0	220	X	10	52.8	4.7	4.75	3.80	3.33	3.09	80-A700X227M4E10-TR	500	2.38
80-A700X277M4E10	A700X277M004ATE010	4.0	270	X	10	64.8	4.7	4.75	3.80	3.33	3.09	80-A700X277M4E10-TR	500	2.38
80-A700X337M4E10	A700X337M004ATE010	4.0	330	X	10	79.2	4.7	5.25	4.20	3.68	3.41	80-A700X337M4E10-TR	500	2.63
80-A700V226M6E28	A700V226M006ATE028	6.3	22	V	28	5.5	3.1	2.73	2.18	1.91	1.77	80-A700V226M6E28-TR	1000	1.23
80-A700V226M6E45	A700V226M006ATE045	6.3	22	V	45	5.5	2.4	2.48	1.98	1.73	1.61	80-A700V226M6E45-TR	1000	1.11
80-A700V336M6E18	A700V336M006ATE018	6.3	33	V	18	8.3	3.9	2.25	1.80	1.58	1.46	80-A700V336M6E18-TR	1000	1.01
80-A700V336M6E25	A700V336M006ATE025	6.3	33	V	25	8.3	3.3	2.00	1.60	1.40	1.30	80-A700V336M6E25-TR	1000	.90
80-A700V336M6E28	A700V336M006ATE028	6.3	33	V	28	8.3	3.1	1.75	1.40	1.23	1.14	80-A700V336M6E28-TR	1000	.79
80-A700V476M6E18	A700V476M006ATE018	6.3	47	V	18	11.8	3.9	2.25	1.80	1.58	1.46	80-A700V476M6E18-TR	1000	1.01
80-A700V476M006	A700V476M006ATE025	6.3	47	V	25	11.8	3.3	1.75	1.40	1.23	1.14	80-A700V476M006-TR	1000	.79
80-A700V476M6E28	A700V476M006ATE028	6.3	47	V	28	11.8	3.1	1.75	1.40	1.23	1.14	80-A700V476M6E28-TR	1000	.79
80-A700V566M6E18	A700V566M006ATE018	6.3	56	V	18	14.1	3.9	2.25	1.80	1.58	1.46	80-A700V566M6E18-TR	1000	1.01
80-A700V566M6E25	A700V566M006ATE025	6.3	56	V	25	14.1	3.3	2.00	1.60	1.40	1.30	80-A700V566M6E25-TR	1000	.90
80-A700V566M6E28	A700V566M006ATE028	6.3	56	V	28	14.1	3.1	1.75	1.40	1.23	1.14	80-A700V566M6E28-TR	1000	.79
80-A700V686M6E18	A700V686M006ATE018	6.3	68	V	18	17.1	3.9	2.25	1.80	1.58	1.46	80-A700V686M6E18-TR	1000	1.01
80-A700V686M6E25	A700V686M006ATE025	6.3	68	V	25	17.1	3.3	2.00	1.60	1.40	1.30	80-A700V686M6E25-TR	1000	.90
80-A700V686M006	A700V686M006ATE028	6.3	68	V	28	17.1	3.1	1.75	1.40	1.23	1.14	80-A700V686M006-TR	1000	.79
80-A700V826M6E18	A700V826M006ATE018	6.3	82	V	18	20.7	3.9	2.98	2.38	2.08	1.93	80-A700V826M6E18-TR	1000	1.34
80-A700V826M6E25	A700V826M006ATE025	6.3	82	V	25	20.7	3.3	2.73	2.18	1.91	1.77	80-A700V826M6E25-TR	1000	1.23
80-A700V826M6E28	A700V826M006ATE028	6.3	82	V	28	20.7	3.1	2.48	1.98	1.73	1.61	80-A700V826M6E28-TR	1000	1.11
80-A700D107M6E15	A700D107M006ATE015	6.3	100	D	15	25.2	4.1	3.50	2.80	2.45	2.28	80-A700D107M6E15-TR	500	1.75
80-A700D107M006	A700D107M006ATE018	6.3	100	D	18	25.2	3.7	3.25	2.60	2.28	2.11	80-A700D107M006-TR	500	1.63
80-A700D127M6E15	A700D127M006ATE015	6.3	120	D	15	30.2	4.1	3.98	3.18	2.78	2.58	80-A700D127M6E15-TR	500	1.99
80-A700D127M6E18	A700D127M006ATE018	6.3	120	D	18	30.2	3.7	3.73	2.98	2.61	2.42	80-A700D127M6E18-TR	500	1.86
80-A700X157M6E10	A700X157M006ATE010	6.3	150	X	10	37.8	4.7	4.75	3.80	3.33	3.09	80-A700X157M6E10-TR	500	2.38
80-A700X187M6E10	A700X187M006ATE010	6.3	180	X	10	45.4	4.7	4.75	3.80	3.33	3.09	80-A700X187M6E10-TR	500	2.38
80-A700V226M8E28	A700V226M008ATE028	8.0	22	V	28	7.0	3.1	2.73	2.18	1.91	1.77	80-A700V226M8E28-TR	1000	1.23
80-A700V226M8E45	A700V226M008ATE045	8.0	22	V	45	7.0	2.4	2.48	1.98	1.73	1.61	80-A700V226M8E45-TR	1000	1.11
80-A700V336M8E18	A700V336M008ATE018	8.0	33	V	18	10.6	3.9	2.25	1.80	1.58	1.46	80-A700V336M8E18-TR	1000	1.01
80-A700V336M8E25	A700V336M008ATE025	8.0	33	V	25	10.6	3.3	2.00	1.60	1.40	1.30	80-A700V336M8E25-TR	1000	.90
80-A700V336M008	A700V336M008ATE028	8.0	33	V	28	10.6	3.1	1.75	1.40	1.23	1.14	80-A700V336M008-TR	1000	.79
80-A700D566M8E15	A700D566M008ATE015	8.0	56	D	15	17.9	4.1	3.98	3.18	2.78	2.58	80-A700D566M8E15-TR	500	1.99
80-A700D566M8E18	A700D566M008ATE018	8.0	56	D	18	17.9	3.7	3.73	2.98	2.61	2.42	80-A700D566M8E18-TR	500	1.86
80-A700D686M8E15	A700D686M008ATE015	8.0	68	D	15	21.8	4.1	3.98	3.18	2.78	2.58	80-A700D686M8E15-TR	500	1.99
80-A700D686M8E18	A700D686M008ATE018	8.0	68	D	18	21.8	3.7	3.73	2.98	2.61	2.42	80-A700D686M8E18-TR	500	1.86
80-A700X107M8E10	A700X107M008ATE010	8.0	100	X	10	32	4.7	5.25	4.20	3.68	3.41	80-A700X107M8E10-TR	500	2.63
80-A700V336M10E														