

AO-CAP Specification Sheet

A700 Series - KEMET Aluminum-Organic AO-CAP

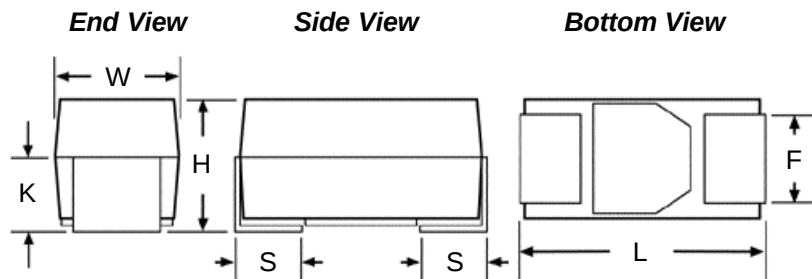
Applications

- Input/Output Filters for voltage regulators, converters, and SMPS
- Battery Decoupling (portable, handheld electronics)
- Power Decoupling (μ Processor, transmitter circuits)
- Bulk Capacitor Requirements

Features

- Polymer Cathode Technology
- Extremely Low ESR
- High Frequency Capacitance Retention
- Non-ignition Failure Mode
- Capacitance: 33 to 470 μ F
- Self-healing Mechanism
- -55° to +125°C Capability
- No voltage Derating Up To 125°C
- Robust to Surface Mount Process
- Molded Case with Wraparound Termination
- 100% Accelerated Steady State Aging
- 100% Surge Current Testing
- Solid-state Technology
- Volumetric Efficient
- Voltage: 2 to 10 V (16 and 25V coming soon)
- No Reformation Required
- EIA Standard Case Size
- Pb Free
- No Dry-out Related Failure Mechanism

Outline Drawing

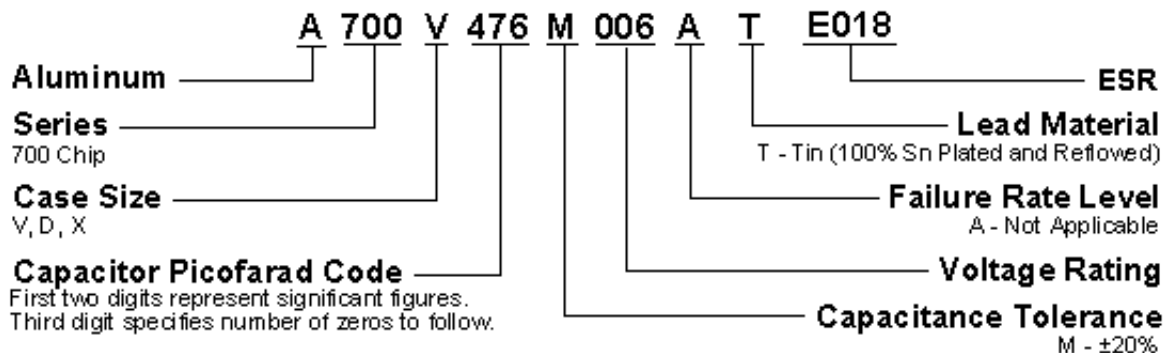


Dimensions - Millimeters

Case Size		L	W	H	K Min.	F ± 0.1	S ± 0.2
KEMET	EIA						
V	7343-20	7.3 $\pm$ 0.3	4.3 $\pm$ 0.3	1.9 $\pm$ 0.1	0.9	2.4	1.3
D	7343-31	7.3 $\pm$ 0.3	4.3 $\pm$ 0.3	2.8 $\pm$ 0.3	1.3	2.4	1.3
X	7343-43	7.3 $\pm$ 0.3	4.3 $\pm$ 0.3	4.0 $\pm$ 0.3	2.1	2.4	1.3

Note that glue pad shape may differ at KEMET's discretion.

A700 Ordering Information



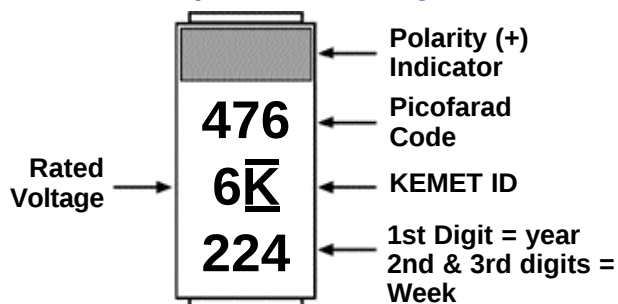
A700 Ratings & Part Number Reference

KEMET Part Number	Case Size	Cap μF	Voltage VDC	DCL @ VR	DF@ 120Hz	ESR 100kHz (mW)	Ripple Current (Arms) @ 100 kHz (+T Rise @ T _{Amb}) +20°C @ (-55°C to105°C)
A700V107M002ATE018	V/7343-20	100	2	12.0 μA	6 %	18	2.6
A700V107M002ATE025	V/7343-20	100	2	12.0 μA	6 %	25	2.2
A700V107M002ATE028	V/7343-20	100	2	12.0 μA	6 %	28	2.1
A700V127M002ATE018	V/7343-20	120	2	14.4 μA	6 %	18	2.6
A700V127M002ATE025	V/7343-20	120	2	14.4 μA	6 %	25	2.2
A700V127M002ATE028	V/7343-20	120	2	14.4 μA	6 %	28	2.1
A700V157M002ATE018	V/7343-20	150	2	18.0 μA	6 %	18	2.6
A700V157M002ATE025	V/7343-20	150	2	18.0 μA	6 %	25	2.2
A700V157M002ATE028	V/7343-20	150	2	18.0 μA	6 %	28	2.1
A700D187M002ATE015	D/7343-31	180	2	21.6 μA	6 %	15	3.4
A700D187M002ATE018	D/7343-31	180	2	21.6 μA	6 %	18	2.9
A700D227M002ATE015	D/7343-31	220	2	26.4 μA	6 %	15	3.4
A700D227M002ATE018	D/7343-31	220	2	26.4 μA	6 %	18	2.9
A700X277M002ATE010	X/7343-43	270	2	32.4 μA	6 %	10	4.2
A700X277M002ATE015	X/7343-43	270	2	32.4 μA	6 %	15	3.4
A700X337M002ATE010	X/7343-43	330	2	39.6 μA	6 %	10	4.2
A700X337M002ATE015	X/7343-43	330	2	39.6 μA	6 %	15	3.4
A700X397M002ATE010	X/7343-43	390	2	46.8 μA	6 %	10	4.2
A700X397M002ATE015	X/7343-43	390	2	46.8 μA	6 %	15	3.4
A700X477M002ATE010	X/7343-43	470	2	56.4 μA	6 %	10	4.2
A700X477M002ATE015	X/7343-43	470	2	56.4 μA	6 %	15	3.4
A700V826M2R5ATE018	V/7343-20	82	2.5	12.3 μA	6 %	18	2.6
A700V826M2R5ATE025	V/7343-20	82	2.5	12.3 μA	6 %	25	2.2
A700V826M2R5ATE028	V/7343-20	82	2.5	12.3 μA	6 %	28	2.1
A700D157M2R5ATE015	D/7343-31	150	2.5	22.5 μA	6 %	15	3.4
A700D157M2R5ATE018	D/7343-31	150	2.5	22.5 μA	6 %	18	2.9
A700D187M2R5ATE015	D/7343-31	180	2.5	27.0 μA	6 %	15	3.4
A700D187M2R5ATE018	D/7343-31	180	2.5	27.0 μA	6 %	18	2.9
A700X227M2R5ATE010	X/7343-43	220	2.5	33.0 μA	6 %	10	4.2
A700X227M2R5ATE015	X/7343-43	220	2.5	33.0 μA	6 %	15	3.4
A700X337M2R5ATE010	X/7343-43	330	2.5	49.5 μA	6 %	10	4.2
A700X337M2R5ATE015	X/7343-43	330	2.5	49.5 μA	6 %	15	3.4
A700V826M004ATE018	V/7343-20	82	4	19.7 μA	6 %	18	2.6
A700V826M004ATE025	V/7343-20	82	4	19.7 μA	6 %	25	2.2
A700V826M004ATE028	V/7343-20	82	4	19.7 μA	6 %	28	2.1
A700D127M004ATE015	D/7343-31	120	4	28.8 μA	6 %	15	3.4
A700D127M004ATE018	D/7343-31	120	4	28.8 μA	6 %	18	2.9
A700D157M004ATE015	D/7343-31	150	4	36.0 μA	6 %	15	3.4
A700D157M004ATE018	D/7343-31	150	4	36.0 μA	6 %	18	2.9
A700D187M004ATE015	D/7343-31	180	4	43.2 μA	6 %	15	3.4
A700D187M004ATE018	D/7343-31	180	4	43.2 μA	6 %	18	2.9
A700X227M004ATE010	X/7343-43	220	4	52.8 μA	6 %	10	4.2
A700X227M004ATE015	X/7343-43	220	4	52.8 μA	6 %	15	3.4
A700X277M004ATE010	X/7343-43	270	4	64.8 μA	6 %	10	4.2
A700X277M004ATE015	X/7343-43	270	4	64.8 μA	6 %	15	3.4
A700X337M004ATE010	X/7343-43	330	4	79.2 μA	6 %	10	4.2
A700X337M004ATE015	X/7343-43	330	4	79.2 μA	6 %	15	3.4
A700V226M006ATE028	V/7343-20	22	6.3	5.5 μA	6 %	28	2.1
A700V226M006ATE045	V/7343-20	22	6.3	5.5 μA	6 %	45	1.7
A700V336M006ATE018	V/7343-20	33	6.3	8.3 μA	6 %	18	2.6
A700V336M006ATE025	V/7343-20	33	6.3	8.3 μA	6 %	25	2.2
A700V336M006ATE028	V/7343-20	33	6.3	8.3 μA	6 %	28	2.1
A700V476M006ATE018	V/7343-20	47	6.3	11.8 μA	6 %	18	2.6
A700V476M006ATE025	V/7343-20	47	6.3	11.8 μA	6 %	25	2.2

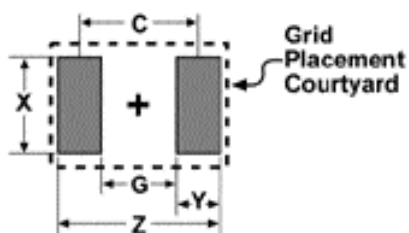
A700 Ratings & Part Number Reference

KEMET Part Number	Case Size	Cap μF	Voltage VDC	DCL @ VR	DF@ 120Hz	ESR 100kHz (mW)	Ripple Current (Arms) @ 100 kHz (+T Rise @ T _{Amb}) +20°C @ (-55°C to105°C)
A700V476M006ATE028	V/7343-20	47	6.3	11.8 μA	6 %	28	2.1
A700V566M006ATE018	V/7343-20	56	6.3	14.1 μA	6 %	18	2.6
A700V566M006ATE025	V/7343-20	56	6.3	14.1 μA	6 %	25	2.2
A700V566M006ATE028	V/7343-20	56	6.3	14.1 μA	6 %	28	2.1
A700V686M006ATE018	V/7343-20	68	6.3	17.1 μA	6 %	18	2.6
A700V686M006ATE025	V/7343-20	68	6.3	17.1 μA	6 %	25	2.2
A700V686M006ATE028	V/7343-20	68	6.3	17.1 μA	6 %	28	2.1
A700V826M006ATE018	V/7343-20	82	6.3	20.7 μA	6 %	18	2.6
A700V826M006ATE025	V/7343-20	82	6.3	20.7 μA	6 %	25	2.2
A700V826M006ATE028	V/7343-20	82	6.3	20.7 μA	6 %	28	2.1
A700D107M006ATE015	D/7343-31	100	6.3	25.2 μA	6 %	15	3.4
A700D107M006ATE018	D/7343-31	100	6.3	25.2 μA	6 %	18	2.9
A700D127M006ATE015	D/7343-31	120	6.3	30.2 μA	6 %	15	3.4
A700D127M006ATE018	D/7343-31	120	6.3	30.2 μA	6 %	18	2.9
A700X157M006ATE010	X/7343-43	150	6.3	37.8 μA	6 %	10	4.2
A700X157M006ATE015	X/7343-43	150	6.3	37.8 μA	6 %	15	3.4
A700X187M006ATE010	X/7343-43	180	6.3	45.4 μA	6 %	10	4.2
A700X187M006ATE015	X/7343-43	180	6.3	45.4 μA	6 %	15	3.4
A700V226M008ATE028	V/7343-20	22	8	7.0 μA	6 %	28	2.1
A700V226M008ATE045	V/7343-20	22	8	7.0 μA	6 %	45	1.7
A700V336M008ATE018	V/7343-20	33	8	10.6 μA	6 %	18	2.6
A700V336M008ATE025	V/7343-20	33	8	10.6 μA	6 %	25	2.2
A700V336M008ATE028	V/7343-20	33	8	10.6 μA	6 %	28	2.1
A700D566M008ATE015	D/7343-31	56	8	17.9 μA	6 %	15	3.4
A700D566M008ATE018	D/7343-31	56	8	17.9 μA	6 %	18	2.9
A700D686M008ATE015	D/7343-31	68	8	21.8 μA	6 %	15	3.4
A700D686M008ATE018	D/7343-31	68	8	21.8 μA	6 %	18	2.9
A700X107M008ATE010	X/7343-43	100	8	32.0 μA	6 %	10	4.2
A700X107M008ATE015	X/7343-43	100	8	32.0 μA	6 %	15	3.4
A700V336M010ATE018	V/7343-20	33	10	13.2 μA	6 %	18	2.6
A700V336M010ATE025	V/7343-20	33	10	13.2 μA	6 %	25	2.2
A700V336M010ATE028	V/7343-20	33	10	13.2 μA	6 %	28	2.1
A700D566M010ATE015	D/7343-31	56	10	22.4 μA	6 %	15	3.4
A700D566M010ATE018	D/7343-31	56	10	22.4 μA	6 %	18	2.9
A700D686M010ATE015	D/7343-31	68	10	27.2 μA	6 %	15	3.4
A700D686M010ATE018	D/7343-31	68	10	27.2 μA	6 %	18	2.9
A700X107M010ATE010	X/7343-43	100	10	40.0 μA	6 %	10	4.2
A700X107M010ATE015	X/7343-43	100	10	40.0 μA	6 %	15	3.4
A700X127M010ATE010	X/7343-43	120	10	48.0 μA	6 %	10	4.2
A700X127M010ATE015	X/7343-43	120	10	48.0 μA	6 %	15	3.4
A700X157M010ATE010	X/7343-43	150	10	60.0 μA	6 %	10	4.2
A700X157M010ATE015	X/7343-43	150	10	60.0 μA	6 %	15	3.4
A700V226M12RATE028	V/7343-20	22	12.5	11.0 μA	6 %	28	2.1
A700V226M12RATE045	V/7343-20	22	12.5	11.0 μA	6 %	45	1.7
A700V825M016ATE045	V/7343-20	8.2	16	5.2 μA	6 %	45	1.7
A700V106M016ATE028	V/7343-20	10	16	6.4 μA	6 %	28	2.1
A700V106M016ATE045	V/7343-20	10	16	6.4 μA	6 %	45	1.7

Component Marking



Recommended Mounting Pad Geometries - Millimeters



Land Pattern Dimensions for Reflow Solder

KEMET/EIA Size Code	Pad Dimensions				
	Z	G	X	Y (ref)	C (ref)
V/7343-20, D/7343-31 X/7343-43	8.90	3.80	2.70	2.55	6.35

Tape & Reel Packaging

Case Codes		Tape & Reel Dimensions				
KEMET	EIA	Tape Width mm	Pitch mm ± 0.1		Reel Quantity	
			Part	Sprocket	180mm (7" dia)	330mm (13" dia)
V	7343-20	12 $\pm$ 0.3	8	4	1000	3000
D	7343-31	12 $\pm$ 0.3	8	4	500	2500
X	7343-43	12 $\pm$ 0.3	8	4	500	2000