

AO-CAP Data 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

A700 Ratings & Part Number Reference

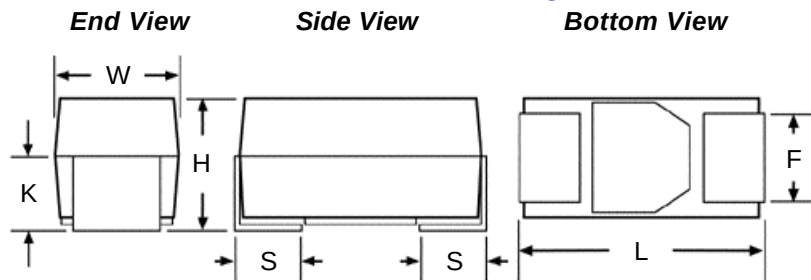
Cap μ F ($\pm 20\%$)	Voltage	Case Size	KEMET Part Number	DC Leakage μ A +25°C Max	DF % 120 Hz + 25°C Max	ESR mW 100kHz 25°C Max	Ripple Current Arms 100kHz, @ Max ESR 25°C to 105°C
100.0	2	V/7343-20	A700V107M002AT	12.0	6%	28	2.1
150.0	2	V/7343-20	A700V157M002AT	18.0	6%	28	2.1
180.0	2	D/7343/31	A700D187M002AT	21.6	6%	18	2.9
220.0	2	D/7343-31	A700D227M002AT	26.4	6%	18	2.9
270.0	2	X/7343-43	A700X277M002AT	26.4	6%	15	3.4
330.0	2	X/7343-43	A700X337M002AT	39.6	6%	15	3.4
390.0	2	X/7343-43	A700X397M002AT	46.8	6%	15	3.4
470.0	2	X/7343-43	A700X477M002AT	56.4	6%	15	3.4
82.0	2.5	V/7343-20	A700V826M004AT6003	12.3	6%	28	2.1
150.0	2.5	D/7343/31	A700D157M004AT6003	22.5	6%	18	2.9
220.0	2.5	X/7343-43	A700X227M004AT6003	33.0	6%	15	3.4
82.0	4	V/7343-20	A700V826M004AT	19.7	6%	28	2.1
120.0	4	D/7343-31	A700D127M004AT	28.8	6%	18	2.9
150.0	4	D/7343-31	A700D157M004AT	36.0	6%	18	2.9
180.0	4	X/7343-43	A700X187M004AT	43.2	6%	15	3.4
220.0	4	X/7343-43	A700X227M004AT	52.8	6%	15	3.4
270.0	4	X/7343-43	A700X277M004AT	64.8	6%	15	3.4
33.0	6.3	V/7343-20	A700V336M006AT	8.3	6%	28	2.1
47.0	6.3	V/7343-20	A700V476M006AT	11.8	6%	28	2.1
56.0	6.3	V/7343-20	A700V566M006AT	14.1	6%	28	2.1
68.0	6.3	V/7343-20	A700V686M006AT	17.1	6%	28	2.1
100.0	6.3	D/7343-31	A700D107M006AT	25.2	6%	18	2.9
150.0	6.3	X/7343-43	A700X157M006AT	37.8	6%	15	3.4
180.0	6.3	X/7343-43	A700X187M006AT	45.4	6%	15	3.4
33.0	8	V/7343-20	A700V336M008AT	10.6	6%	28	2.1
33.0	10	V/7343-20	A700V336M010AT	13.2	6%	28	2.1

Note that DC leakage limits are after a minimum of 2 minutes charge time at rated voltage.

Lower ESR Ratings Using 6050 KEMET Specification

Case Size	ESR mW 100kHz 25°C Max.	Ripple Current Arms 100kHz, @ Max ESR 25°C to 105°C
V/7343-20	25	2.2
D/7343-31	15	3.4
X/7343-43	10	4.2

Outline Drawing

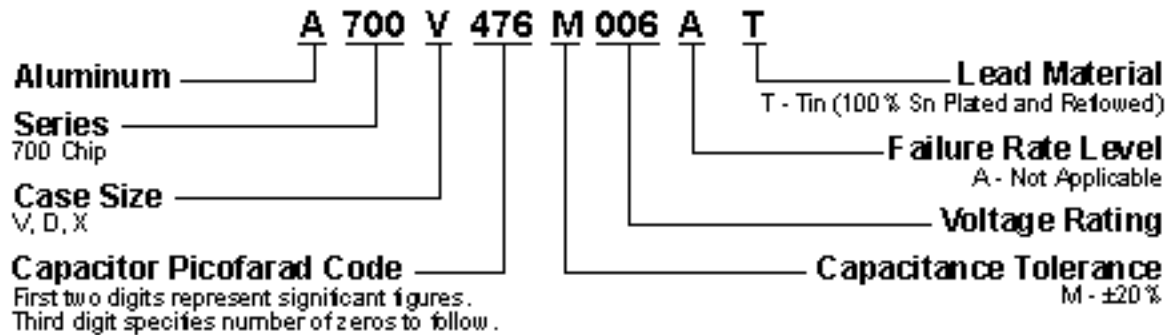


Dimensions - Millimeters

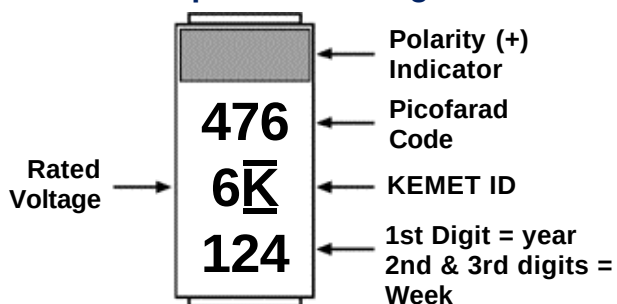
Case Size		L	W	H	K Min.	F ±0.1	S ±0.2
KEMET	EIA						
V	7343-20	7.3 ± 0.3	4.3 ± 0.3	1.9 ± 0.1	0.9	2.4	1.3
D	7343-31	7.3 ± 0.3	4.3 ± 0.3	2.8 ± 0.3	1.3	2.4	1.3
X	7343-43	7.3 ± 0.3	4.3 ± 0.3	4.0 ± 0.3	2.1	2.4	1.3

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

A700 Ordering Information



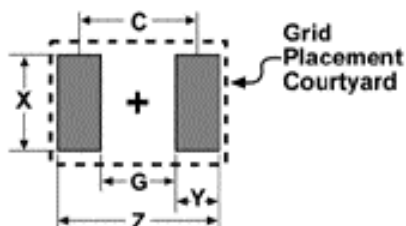
Component Marking



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 ± 0.3	8	4	1000	3000
D	7343-31	12 ± 0.3	8	4	500	2500
X	7343-43	12 ± 0.3	8	4	500	2000

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