

Aluminum Electrolytic Capacitors Screw Terminal Type

AES-UP Series

MERITEK

FEATURE

- 10000 hours of load life at 85°C
- Aluminum can with threaded stud mounting
- High ripple current capability
- High reliability design
- Operation temperature: -40°C ~ +85°C



PART NUMBERING SYSTEM

AES 2V 102 M B 075 UP
(1) (2) (3) (4) (5) (6) (7)



No	Item	Code	Description	Reference
(1)	Meritek Series	AES	Aluminum Electrolytic Capacitor	Screw terminal type
(2)	Rated Voltage Code	2V	2V: 350V	2V: 350V, 2G: 400V, 2W: 450V
(3)	Capacitance	102	102: 1000μF	222: 2200μF
(4)	Tolerance	M	M: ±20%	-20% ~ +20% (M)
(5)	Case Code (Diameter)	B	B: 51mm	B: 51mm, C:64mm, D:77mm, E:90mm
(6)	Length	075	075: 75mm	075: 75mm ~ 236: 236mm
(7)	Internal Code	UP	10000 hours load life at 85°C	Product type reference

ELECTRICAL CHARACTERISTICS

Item	Characteristic				
Operation Temperature	-40°C ~ +85°C				
Rated Working Voltage	350 ~ 450VDC				
Capacitance at 120Hz 20°C	1000 ~ 15000μF				
Capacitance Tolerance at 120Hz 20°C	±20%(M)				
Max ripple Current at 120Hz 85°C	6.39 ~ 59.5Arms				
Leakage Current at 20°C	I ≤ 0.02CV or 5 mA whichever is smaller after 5 minutes		I : Leakage Current(μA) C : Rated Capacitance(μF) V : Working Voltage(V)		
Surge Voltage at 20°C	Working Voltage	W.V. (VDC)	350	400	450
	Surge Voltage	S.V. (VDC)	400	450	500
Dissipation Factor (tan δ) at 120Hz 20°C	W.V. (VDC)	350	400	450	
	tan δ	0.15	0.15	0.15	0.15
Low Temperature Stability Impedance ratio at 120Hz	8			Rated Voltage 350 ~ 450 (VDC)	
				-25°C / +20°C	
Load Life	Capacitance Change	≤ ±20% of initial value		After 10000 hours application of W.V. and +85°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)	
	Dissipation Factor	≤200% of initial specified value			
	Leakage Current	≤ initial specified value			
Shelf Life	At +85°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)				

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CASE SIZES AND MAX RIPPLE CURRENT

Rated Voltage		350Vdc (2V)		400Vdc (2G)		450Vdc (2W)	
Capacitance (μF)	Code	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)
1000	102	51x75	7.99	51x75	6.39	51x96	8.30
1200	122	51x75	8.75	51x96	7.79	51x115	9.86
1500	152	51x96	10.9	51x115	9.45	51x130	11.6
1800	182	51x96	11.9	51x130	10.9	64x96	12.3
2200	222	51x130	15.1	64x96	11.6	64x115	14.7
2700	272	64x96	16.1	64x115	13.9	64x130	17.2
						77x115	17.5
3300	332	64x115	19.2	64x130	16.3	64x155	20.5
						77x130	20.4
3900	392	64x130	22.1	64x155	19.1	64x195	24.8
				77x115	18.0		
4700	472	64x155	26.2	64x195	23.3	77x155	25.4
		77x115	24.7	77x130	20.8		
5600	562	64x195	30.8	64x195	24.6	77x195	30.7
		77x130	28.4	77x155	23.7	90x157	29.3
6800	682	77x155	32.7	90x157	27.7	90x196	35.7
8200	822	90x157	38.0	90x157	30.4	90x196	39.2
10000	103	90x157	42.0	90x196	35.7	90x236	45.4
12000	123	90x196	50.8	90x236	42.6	-	-
15000	153	90x236	59.5	-	-	-	-

DIMENSIONS

φD	P	d1max	d2	T	T1
51	22.0	11.0	7.88	16	12
64	28.5	12.0	7.88	16	12
77	31.8	11.9	7.88	16	12
90	31.6	14.0	13.0	17	12

Unit: mm

RIPPLE CURRENT COEFFICIENTS

Frequency (Hz)	60	120	300	1K	≥10K
Multiplier	0.70	1.00	1.10	1.30	1.40

Temperature	40°C	60°C	85°C
Multiplier	1.89	1.67	1.00

