

Aluminum Electrolytic Capacitors Screw Terminal Type

AES-EP Series

MERITEK

FEATURE

- 5000 hours of load life at 105°C
- High ripple current capability
- High reliability design
- Operation temperature: -40°C ~ +105°C



PART NUMBERING SYSTEM

AES 2V 102 M B 075 EP
(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	EP	5000 hours load life at 105°C	Product type reference

ELECTRICAL CHARACTERISTICS

Item		Characteristic			
Operation Temperature		-40°C ~ +105°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		5.6 ~ 42.3Arms			
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	
Low Temperature Stability Impedance ratio at 120Hz		8		350 ~ 450 (VDC)	
				-25°C / +20°C	
Load Life	Capacitance Change	≤ ±20% of initial value		After 10000 hours application of W.V. and +105°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 +105°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	5.6	51x75	5.6	51x96	6.2
1200	122	51x75	6.1	51x96	6.8	51x115	7.4
1500	152	51x96	7.6	51x115	8.2	51x130	8.7
1800	182	51x96	8.3	51x130	9.5	64x115	9.7
2200	222	51x130	10.5	64x96	9.7	64x115	10.7
2700	272	64x96	10.9	64x115	11.8	64x130	12.5
						77x115	12.7
3300	332	64x115	13.1	64x130	13.8	64x155	14.9
						77x130	14.8
3900	392	64x130	15.0	64x155	16.2	64x195	18.0
4700	472	64x155	17.8	64x195	19.8	77x155	19.1
		77x115	16.8	77x130	17.7		
5600	562	64x195	21.6	64x195	21.6	77x195	23.2
		77x130	19.3	77x155	20.9	90x157	21.5
6800	682	77x144	22.3	90x157	23.7	90x196	26.2
8200	822	90x157	26.1	90x157	26.1	90x196	28.8
10000	103	90x157	28.8	90x196	31.8	90x236	34.5
12000	123	90x196	34.8	90x236	37.8	-	-
15000	153	90x236	42.3	-	-	-	-

DIMENSIONS

φD	W1	W2	W3	W4	W5	P
51	32.5	37.5	4.5	7.0	13.0	22.20
64	38.5	42.8	4.5	7.0	13.0	28.54
77	44.8	49.0	4.5	7.0	13.0	31.80
90	52.3	58.8	5.0	8.0	16.0	31.62

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	105°C
Multiplier	2.44	2.16	2.00	1.00

