

Aluminum Electrolytic Capacitors Screw Terminal Type

AES-BP Series

MERITEK

FEATURE

- 5000 hours of load life at 105°C
- Aluminum can with threaded stud mounting
- High ripple current capability
- High reliability design
- Operation temperature: -40°C ~ +105°C



PART NUMBERING SYSTEM

AES (1) **2V** (2) **102** (3) **M** (4) **B** (5) **075** (6) **BP** (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: 450
(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	050: 50mm ~ 236: 236mm
(7)	Internal Code	BP	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		4.3 ~ 33Arms			
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 5000 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	4.3	51x75	4.3	51x96	4.8
1200	122	51x75	4.7	51x96	5.2	51x115	5.7
1500	152	51x96	5.8	51x115	6.3	51x130	6.7
1800	182	51x96	6.4	51x130	7.3	64x96	6.9
2200	222	51x130	8.1	64x96	7.6	64x115	8.2
2700	272	64x96	8.4	64x115	9.1	64x130	9.6
						77x115	9.8
3300	332	64x115	10.1	64x130	10.6	64x155	11.5
						77x130	11.4
3900	392	64x130	11.5	64x155	12.5	64x195	13.9
				77x115	11.8		
4700	472	64x155	13.7	64x195	15.2	77x155	14.7
		77x115	12.9	77x130	13.6		
5600	562	64x195	16.6	64x195	16.6	77x195	17.8
		77x130	14.9	77x155	16.1	90x157	16.6
6800	682	77x144	17.1	90x157	18.3	90x196	20.1
6800	682	77x155	17.7	-	-	-	-
8200	822	90x157	20.1	90x157	20.1	90x196	22.1
10000	103	90x157	22.1	90x196	24.4	90x236	26.6
12000	123	90x196	26.8	90x236	29.1	-	-
15000	153	90x236	32.5	-	-	-	-

DIMENSIONS

φD	P	d1	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	105°C
Multiplier	2.44	2.16	2.00	1.00

