

# Aluminum Electrolytic Capacitors Screw Terminal Type

AES-MP Series

MERITEK

## FEATURE

- 5000 hours of load life at 85°C
- High voltage capability
- High ripple current capability
- High reliability design
- Operation temperature: -40°C ~ +85°C



## PART NUMBERING SYSTEM

AES   2V   122   M   B   075   MP  
(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	122	122: 1200 $\mu$ F	222: 2200 $\mu$ F
(4)	Tolerance	M	M: $\pm$ 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	MP	5000 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 ~ 18000 $\mu$ F				
Capacitance Tolerance at 120Hz 20°C	$\pm$ 20%(M)				
Max ripple Current at 120Hz 85°C	4.76 ~ 40.25Arms				
Leakage Current at 20°C	I $\leq$ 0.02CV or 5 mA whichever is smaller after 5 minutes		I : Leakage Current( $\mu$ A) C : Rated Capacitance( $\mu$ F) 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 $\delta$ ) at 120Hz 20°C	W.V. (VDC)	350	400	450	
	tan $\delta$	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	$\leq$ $\pm$ 20% of initial value		After 5000 hours application of W.V. and +85°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage $\leq$ rate working voltage)	
	Dissipation Factor	$\leq$ 200% of initial specified value			
	Leakage Current	$\leq$ 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	4.76	51x75	4.99
1200	122	51x75	5.21	51x75	5.21	51x96	6.09
1500	152	51x75	5.82	51x96	6.48	51x115	7.38
1800	182	51x96	7.10	51x96	7.10	51x130	8.54
2200	222	51x96	7.85	51x130	8.99	64x96	8.93
2700	272	51x130	9.97	64x96	9.64	64x115	10.69
3300	332	51x130	11.02	64x115	11.53	64x130	12.48
3900	392	64x115	12.53	64x130	13.23	64x155	14.68
						77x115	13.56
4700	472	64x130	14.53	64x155	15.72	64x195	17.91
				77x115	14.10	77x130	15.69
5600	562	64x155	17.16	64x195	19.06	77x155	18.51
		77x115	15.39	77x130	16.23		
6800	682	64x195	21.00	77x155	19.33	90x157	21.21
		77x130	17.88				
8200	822	77x155	21.22	90x157	22.64	90x157	23.29
10000	103	90x157	25.00	90x157	25.00	90x196	28.37
12000	123	90x157	27.39	90x196	30.22	90x236	33.80
15000	153	90x196	33.78	90x236	36.74	-	-
18000	183	90x236	40.25	-	-	-	-

## DIMENSIONS

φD	W1	W2	W3	W4	W5	P
51	32.5	37.5	4.5	7.0	13.0	22.0
64	38.5	42.8	4.5	7.0	13.0	28.5
77	44.8	49.0	4.5	7.0	13.0	32.0
90	52.3	58.8	5.0	8.0	16.0	32.0

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

