

Aluminum Electrolytic Capacitors 1000Hrs 85°C Miniature

RBM Series

MERITEK

FEATURE

- Operating Temperature: -40°C ~ +85°C
- Load Life of 1000 Hours at +85°C
- One Rank Smaller Case Sizes Than RB Series
- High Value of CV For General Purposes



SPECIFICATIONS

Item	Characteristic									
Operation Temperature Range	-40°C ~ + 85°C									
Rated Working Voltage	6.3 ~ 100VDC									
Capacitance Tolerance	±20% (M) at 120Hz 20°C									
Leakage Current at 20°C	I ≤ 0.03CV or 4 (μA) *Whichever is greater after 3 minutes					I: Leakage Current (μA) C: Capacitance (μF) V: Working Voltage (V)				
Surge Voltage at 20°C	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	
	Surge Voltage (V)	8	13	20	32	44	63	79	125	
Dissipation Factor (tan δ)	Add 0.02 per 1000 μF for more than 1000 μF, at 120Hz 20°C									
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	
	tan δ max	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	
Low Temperature Stability	Impedance ratio at 120Hz									
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	
	-25°C / +20°C	5	4	3	2	2	2	2	2	
	-40°C / +20°C	12	10	8	5	4	4	3		
Load Life	After 1000 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)									
	Capacitance Change	≤ ±20% of initial value								
	Dissipation Factor	≤ 150% 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 following limits. (with voltage treatment)									
	Capacitance Change	≤ ±20% of initial value								
	Dissipation Factor	≤ 200% of initial specified value								
	Leakage current	≤ 200% of initial specified value								

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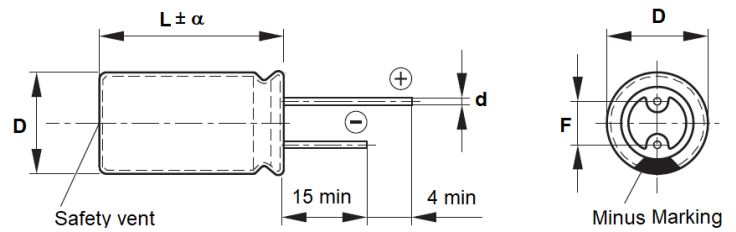
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DIMENSION

Unit: mm

D+0.5(max)	5	6.3	8	10	12.5	16	18
F±0.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d±0.05	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	1.5	1.5	1.5	1.5	1.5	1.5	1.5



RIPPLE CURRENT COEFFICIENTS

Working Voltage	Frequency Coefficient			
	60Hz	120Hz	1KHz	≥ 10KHz
6.3~25V	0.85	1.00	1.10	1.20
35~100V	0.80	1.00	1.15	1.25

Temperature	Coefficient
65°C	1.25
75°C	1.14
85°C	1.00

CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		6.3VDC (0J)		10VDC (1A)		16VDC (1C)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
100	101				→	5x11	180
220	221	5x11	230	5x11	250	6.3x11	300
330	331	6.3x11	310	6.3x11	340	8x11.5	440
470	471	6.3x11	370	6.3x11	410	8x11.5	520
1000	102	8x11.5	640	10x12.5	740	10x16	890
2200	222	10x20	1170	10x20	1280	12.5x20	1470
3300	332	10x20	1390	12.5x20	1600	12.5x25	1880
4700	472	12.5x20	1680	12.5x25	1980	16x25	2110
6800	682	12.5x25	2090	16x25	2240	16x31.5	2600
10000	103	16x25	2330	16x35.5	2860	18x35.5	3180
15000	153	16x35.5	2990	18x35.5	3320		
22000	223	18x40	3620				

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CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		25VDC (1E)		35VDC (1V)		50VDC (1H)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
22	220		→	5x11	100	5x11	110
33	330		→	5x11	120	5x11	130
47	470		→	5x11	150	6.3x11	180
100	101	6.3x11	220	6.3x11	240	8x11.5	300
220	221	8x11.5	380	8x11.5	420	10x12.5	470
330	331	8x11.5	460	10x12.5	550	10x16	630
470	471	10x12.5	580	10x16	720	10x20	830
1000	102	10x20	1040	12.5x20	1240	12.5x25	1430
2200	222	12.5x25	1710	16x25	1890	16x35.5	2290
3300	332	16x25	1990	16x35.5	2530	18x35.5	2790
4700	472	16x31.5	2440	18x35.5	2960		
6800	682	18x35.5	3040				

Capacitance		63VDC (1J)		100VDC (2A)	
		DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)
10	100	5x11	75	6.3x11	95
22	220	5x11	110	6.3x11	140
33	330	6.3x11	150	8x11.5	200
47	470	6.3x11	180	10x12.5	250
100	101	10x12.5	330	10x20	450
220	221	10x16	540	12.5x25	790
330	331	10x20	730	12.5x25	960
470	471	12.5x20	930	16x25	1160
1000	102	16x25	1510	18x40	2220

Note:

1. Max ripple current: mA (rms) at 85°C. 120Hz
2. All blank voltage on sleeve marking is the same voltage as "→"point to.

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PART NUMBERING SYSTEM

RBM 1H 220 M E 110 A B
(1) (2) (3) (4) (5) (6) (7) (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	RBM	Aluminum Electrolytic Capacitors	Standard, Miniature Sized, 1000Hrs 85°C
(2)	Rated Voltage Code	1H	1H: 50V	DC working voltage, See Table Below
(3)	Capacitance	220	220:22µF	First two digit: significant, Third: Multiplier
(4)	Tolerance	M	M: ± 20%	-20% ~ +20%
(5)	Case Diameter Code	E	E: 5 mm	See Table Below
(6)	Case Height	110	110: 11 mm	Third digit denotes the first decimal place
(7)	Package	A	A: Tape & Ammo	R: Tape & Reel, Blank : Bulk
(8)	Taping Pitch Code	B	B: 2.0 mm	See Table Below, Blank: Bulk

Voltage	4	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	500
Code	0G	0J	1A	1C	1E	1V	1H	1J	2A	2C	2D	2E	2V	2G	2W	2H

Diameter	4	5	6.3	8	10	12.5	14.5	16	18	20	22	25
Code	D	E	F	H	J	K	U	L	M	N	P	Q

Pitch	1.5	2	2.5	3.5	5	7.5
Code	A	B	C	D	E	F

LEGACY PART NUMBERING SYSTEM

RBM 50V 220 M TA 511
(1) (2) (3) (4) (5) (6)

No	(1)	(2)	(3)	(4)	(5)	(6)
Item	Meritek Series	Rated Voltage	Capacitance	Tolerance	Package	Case Size

*Specifications subject to change without notice.