

# Aluminum Electrolytic Capacitors



**RB Series**  
(General Purpose)

**MERITEK**

## FEATURES

- Wide CV value range
- High performance



## SPECIFICATIONS

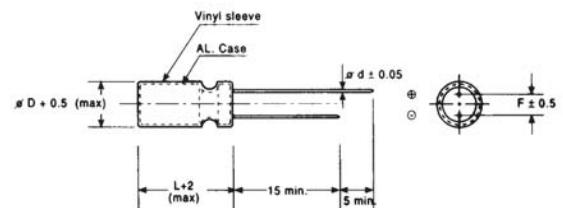
Item	Characteristic																															
Operating Temp Range	-40 °C to +85°C	-25 °C to +85°C																														
Rated Working Voltage	6.3 to 100VDC	160 to 450VDC																														
Capacitance Tolerance	±20% (M)																															
Leakage Current (25°C)	Rated Voltage	≤100V	> 100V																													
	Time	After 3 minutes																														
	Leakage current (I)	≤ 0.01CV or 3μA Whichever is greater	≤ 0.03CV + 10 μA																													
C= Nominal Capacitance (μF) V= Rated voltage																																
Surge voltage (25°C)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>SV</td> <td>8</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> <td>79</td> <td>125</td> <td>200</td> <td>250</td> <td>300</td> <td>400</td> <td>450</td> <td>500</td> </tr> </table>		WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	SV	8	13	20	32	44	63	79	125	200	250	300	400	450	500
WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																		
SV	8	13	20	32	44	63	79	125	200	250	300	400	450	500																		
Dissipation Factor Tanδ (120Hz, 25°C)	Add 0.02 per 100μF for more than 100μF																															
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WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																		
tanδ	0.24	0.20	0.17	0.15	0.12	0.10	0.10	0.08	0.20	0.20	0.20	0.25	0.25	0.25																		
Low Temperature Stability	Impedance ratio at 120Hz																															
	Rated voltage	6.3	10	16	25	35-100	160-250	350-450																								
	-25°C to +25°C	4	3	2	2	2	8	12																								
	-40°C to +25°C	10	8	6	4	3																										
Load Life	After 2000 hours application of WV at +85°C the capacitor shall meet the following limits																															
	Capacitance change	≤ ±20% of initial value																														
	Dissipation Factor	≤ 200% of initial specified value																														
	Leakage current	≤ initial specified value																														
Shelf Life	At 85°C no voltage applied after 500 hours the capacitor shall meet the following limits																															
	Capacitance change	≤ ±20% of initial value																														
	Dissipation Factor	≤ 200% of initial specified value																														
	Leakage current	≤ 200% of initial specified value																														

## PART NUMBERING SYSTEM

<b>Meritek Series</b>	<b>RB</b>	<b>16V</b>	<b>222</b>	<b>M</b>	<b>TA</b>	<b>13 x 21</b>
<b>Voltage</b>						
<b>Capacitance</b> Expressed in microfarads (μF). First two digits are significant figures. Third digit denotes number of zeros. 'R' Denotes decimal point for values less than 10μF.						
<b>Tolerance</b> – M = ±20%						
<b>Package</b>						
CODE	TA	TR	BLANK			
	Tape & Ammo	Tape & Reel	Bulk			

## CASE SIZE

D	5	6.3	8	10	13	16	18	22	25
F	2.0	2.5	3.5	5.0		7.5		10	12
d	0.5		0.6			0.8		1.0	



**Case size** – (D) Diameter X (L) Length in mm (Optional)

A suffix may be added to denote tape and reel/tape and ammo lead spacing or customer specific features

Specifications are subject to change without notice.

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**RB Series**  
(General Purpose)

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## CASE SIZE & MAX RIPPLE CURRENT

Case size: D x L (mm)  
Max ripple current: mA (rms)  
(R.C.): 85°C, 120Hz

μF	WV	6.3		10		16	
	ITEM	D X L	R.C.	D X L	R.C.	D X L	R.C.
47						5x11	100
100		5x11	130	5x11	140	6.3x11	170
220		6.3x11	210	6.3x11	230	6.3x11	290
330		6.3x11	260	6.3x11	330	8x11	350
470		8x11	350	8x11	390	10x12	460
1000		10x12	560	10x12	670	10x16	820
2200		10x21	980	10x21	1080	13x21	1160
3300		13x21	1180	13x21	1270	13x26	1490
4700		13x26	1460	13x26	1610	16x26	1900
6800		16x26	1700	16x26	2010	16x36	2170
10000		16x32	2100	18x32	2260	18x36	2560
15000		18x36	2370	18x36	2670		

μF	WV	25		35		50	
	ITEM	D X L	R.C.	D X L	R.C.	D X L	R.C.
0.1 to 0.47						5x11	13
1						5x11	19
2.2						5x11	29
3.3						5x11	42
4.7						5x11	42
10		5x11	50			5x11	60
22		5x11	75			5x11	90
33		5x11	90	5x11	100	6.3x11	130
47		5x11	110	6.3x11	140	6.3x11	150
100		6.3x11	180	8x11	230	8x11	250
220		8x11	310	10x12	370	10x12	440
330		10x12	410	10x16	500	10x21	610
470		10x16	530	10x16	670	13x21	740
1000		10x21	880	13x21	990	16x26	1220
2200		13x21	1350	16x26	1700	18x32	1890
3300		16x26	1790	18x32	2000	22x36	2320
4700		18x32	2040	18x36	2380	22x43	2865
6800		18x36	2440				

μF	WV	63		100	
	ITEM	D X L	R.C.	D X L	R.C.
0.1 to 0.47				5x11	15
1				5x11	22
2.2				5x11	32
3.3				5x11	39
4.7				5x11	47
10		5x11	60	6.3x11	80
22		6.3x11	100	8x11	130
33		6.3x11	130	10x12	180
47		8x11	170	10x16	230
100		10x12	270	10x21	380
220		10x21	500	13x25	640
330		13x21	620	16x26	780
470		13x26	820	16x32	1040
1000		16x32	1360		

Custom sizes and leads spacing available upon request

Custom values and tolerances available upon request

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## CASE SIZE & MAX RIPPLE CURRENT

Case size: D x L (mm)  
Max ripple current: mA (rms)  
(R.C.): 85°C, 120Hz

μF	WV	160		200		250	
	ITEM	D X L	R.C.	D X L	R.C.	D X L	R.C.
0.1 to 0.47		6.3x11	12	6.3x11	13	6.3x11	14
1		6.3x11	18	6.3x11	19	6.3x11	21
2.2		6.3x11	27	6.3x11	29	6.3x11	31
3.3		6.3x11	33	6.3x11	35	8x11	31
4.7		6.3x11	39	8x11	48	8x11	50
10		8x11	65	10x12	75	10x16	90
22		10x16	120	10x21	140	13x21	150
33		10x21	160	13x21	170	13x21	190
47		13x21	190	13x21	210	13x26	250
100		13x26	310	16x26	340	16x32	410
220		16x36	540	18x42	620		
330		18x42	710				

μF	WV	350		400		450	
	ITEM	D X L	R.C.	D X L	R.C.	D X L	R.C.
0.1 to 0.47		8x11	14	8x11	15	8x11	12
1		8x11	21	8x11	21	8x11	18
2.2		8x11	31	8x11	32	10x12	29
3.3		10x12	41	10x12	42	10x16	38
4.7		10x12	49	10x16	55	10x18	48
10		10x21	85	13x21	90	13x21	75
22		13x21	130	13x26	150	16x26	130
33		13x26	180	16x26	190	16x32	170
47		16x26	220	16x32	250	18x36	210
100		18x36	360				

Custom sizes and leads spacing available upon request

Custom values and tolerances available upon request

## FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

V	Cap (μF)	Frequency				
		50Hz	120Hz	300Hz	1KHz	10KHz
6.3 to 100	0.1 to 47	0.75	1.00	1.35	1.57	2.00
	100 to 470	0.80	1.00	1.23	1.34	1.50
	1000 to 15000	0.85	1.00	1.10	1.13	1.15
160 to 450	0.47 to 220	0.80	1.00	1.25	1.40	1.60
	330	0.90	1.00	1.10	1.13	1.15

## ALLOWABLE RIPPLE CURRENT VS. AMBIENT TEMPERATURE

Ambient Temp (°C)	+70	+85
Coefficient	1.27	1.00