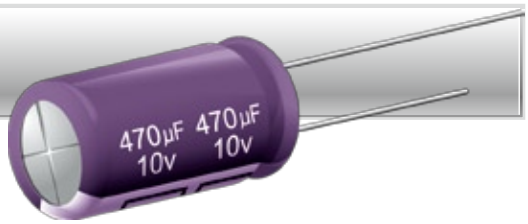
RB Series

ALUMINUM ELECTROLYTIC CAPACITORS



FEATURES

General Used Standard Size

SPECIFICATION

Item	Characteristic	
Operation Temperature Range	-40 to + 105°C	-25 to + 105°C
Rated Working Voltage	6.3 - 100 V.DC	160 – 450 V.DC
Capacitance Tolerance (120Hz 20°C)	±20% (M)	

Leakage Current (120Hz 20°C)

Rated voltage	≤100V	>100V	
Time	After 2 minutes	After 5 minutes	
Leakage Current	I=0.01CV or 3(µA) Whichever is greater	CV ≤ 1000 I = 0.03CV+15(µA)	CV > 1000 I = 0.02CV+25(µA)

C = Rated Capacitance (µF) V =Rated Voltage (V)

Surge Voltage (120Hz 20°C)

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 (120Hz 20°C) (tanδ)

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 (V)	6.3	10	16	25	35-100	160-250	350-450
-25°C/ +25°C	4	3	2	2	2	8	12
-40°C/ +25°C	10	8	6	4	3		

Endurance (Load Life)

After 2000 hours application of W V at + 105°C the capacitor shall meet the following limits

Capacitance Change	≤ ±25% of initial value
Dissipation Factor	≤ 200% of initial specified value
Leakage Current	≤ 200% specified value

Shelf Life

After 1000 hours application of W V at + 105°C the capacitor shall meet the following limits

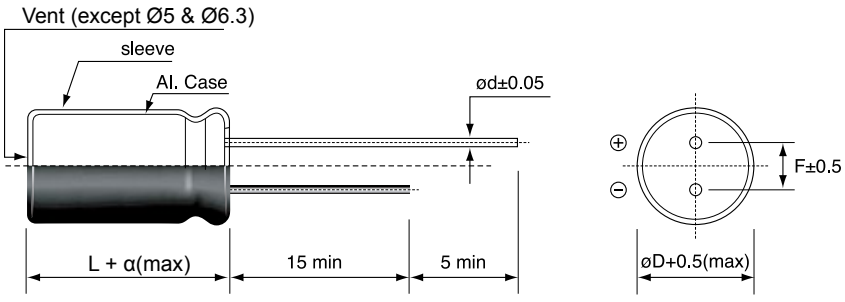
Capacitance Change	≤ ±25% of initial value
Dissipation Factor	≤ 200% of initial specified value
Leakage Current	≤ 200% of initial specified value

RIPPLE CURRENT FOR FREQUENCY MULTIPLIERS

Frequency (Hz) / CAP(µF)	50	120	300	1K	10K
0.1-47	0.75	1.00	1.35	1.57	2.00
100-470	0.80	1.00	1.23	1.34	1.50
1000-15000	0.85	1.00	1.10	1.13	1.15
0.47-220	0.80	1.00	1.25	1.40	1.60
330	0.90	1.00	1.10	1.13	1.15

DIMENSIONS (mm)

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		0.8	
α	1.5			2.0					



CASE SIZE & MAX RIPPLE CURRENT

WV / μF	6.3 / 0J		10 / 1A		16 / 1C		25 / 1E		35 / 1V		50 / 1H		63 / 1J	
	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)
0.47											5x11	7	5x11	8
1.0											5x11	12	5x11	13
2.2											5x11	18	5x11	20
3.3											5x11	25	5x11	27
4.7							5x11	20	5x11	25	5x11	30	5x11	34
6.8							5x11	25	5x11	30	5x11	32	5x11	37
10					5x11	25	5x11	30	5x11	40	5x11	50	5x11	55
15					5x11	40	5x11	45	5x11	50	5x11	60	5x11	65
22			5x11	45	5x11	55	5x11	60	5x11	65	5x11	75	6.3x11	90
33			5x11	60	5x11	70	5x11 6.3x11	75	5x11	85	6.3x11	105	6.3x11 8x11	110 120
47	5x11	60	5x11	75	5x11	85	5x11	90	5x11 6.3x11	95 115	6.3x11 8x11	100 125	8x11	155
56							5x11							
68	5x11	75	5x11	80	5x11	100	6.3x11	125	8x11	130	8x11	159	10x12	198
100	5x11	100	5x11	110	5x11 6.3x11	110 135	6.3x11 8x11	145 180	6.3x11 8x11	150 190	6.3x11 8x11 10x12	160 210	8x14 10x12	230 260
120					6.3x11									
150	5x11	120	6.3x11	130	8x11	180	8x11	200	10x12	240	10x12	289	10x15	330
220	4x11 6.3x11	140	6.3x11	180	6.3x11 8x11	180 235	8x11 10x12	200 250	8x14 10x12	280 315	10x15	400	10x15 10x20	400 450
330	6.3x11 8x11	160 200	6.3x11 8x11	255	8x11	285	8x11 8x15 10x12	320 355	10x12 10x15	380 440	10x15 10x20	450 535	13x21	650
470	6.3x11 8x11	220 280	6.3x11 8x11	240 305	8x11 8x12 10x12	310 395	8x14 10x12 10x15 10x20	400 470	10x15 10x15 13x21	490 580	10x20 13x21	730	13x21 13x25	700 800
560							10x12							
680	10x12	320	8x11 10x12	420	10x15	530	10x20	650	13x21	730	13x25	860	13x25 16x26	840 1000
1000	8x11 8x12 10x12	370 470	8x14 10x12 10x15	490 570	10x12 10x15 10x20	590 700	13x16 13x20 13x21	680 855	13x16 13x21 13x25	850 995	13x25 16x26	930 1110	16x26 16x32	1020 1200
1500	10x15	600	10x20	750	10x20 13x21	680 860	13x25	1020	16x26	1110	16x32	1350	16x32 16x36	1300 1450
2200	10x20 13x21	740 930	10x20 13x21	800 1010	13x21 13x25	990 1150	13x25 16x15 16x26	1030 1230	13x21 16x26 13x21	1230 1450	16x36 16x32 18x36	1360 1530		
3300	10x20 13x21	880 1100	13x21 13x25	1050 1220	13x25 16x26	1140 1350	16x26 16x32	1230 1450	16x36 18x36	1470 1660	18x42	1700		
3900	10x25													
4700	13x25 16x26	1100 1320	13x25 16x26	1190 1410	16x26 16x32	1330 1560	16x26 16x32 16x36 18x32 18x36	1380 1420 1570 1690	18x36 18x42	1580 1750	22x35	1900		
6800	13x25 16x26	1300 1350	16x26 16x32	1370 1600	16x36 18x36	1590 1790	18x36	1850						
10000	16x26 16x32	1560 1830	16x36 18x36	1760 1980	18x36	2100								
15000	18x36	2280												

WV / µF	100 / 2A		160 / 2C		200 / 2D		250 / 2E		350 / 2V		400 / 2G		450 / 2W	
	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)	Case Size (mm)	Ripple Current (mA)
0.47	5x11	10	5x11	12	5x11	14	5x11	14	5x11	14	6.3x11	14	6.3x11	14
1.0	5x11	15	5x11	17	5x11	19	6.3x11	19	6.3x11	20	6.3x11	16	8 x11	20
											8x11	20		
2.2	5x11	22	6.3x11	25	6.3x11	22	6.3x11	23	8x11	35	8x11	28	10x12	35
					8x11	28	8x11	29			10x12	35		
3.3	5x11	29	6.3x11	30	6.3x11	32	8x11	33	8x11	37	8x11	38	10x15	54
			8x11	36	8x11	40	10x12	42	10x12	47	10x12	50		
4.7	5x11	37	6.3x11	34	8x11	40	8x11	41	10x12	47	10x12	49	10x15	60
			8x11	43	10x12	50	10x12	52	10x15	55	10x15	57		
6.8	5x11	46	10x12	54	10x12	60	8x15	62	10x15	65	10x20	72	10x20	80
							10x12	60						
10	5x11	55	8x11	56	10x12	69	10x15	88	10x15	95	10x20	77	13x21	85
	6.3x11	65	10x12	70	10x15	80					13x21	97	13x25	100
15	8x11	82	10x1S	90	10x15	110	10x15	120	10x20	140	10x20	100	16x26	160
											13x25	150		
22	6.3x11	115	10x15	130	10x15	140	10x20	155	13x21	165	13x21	150	16x26	150
	8x11										13x25	175	16x32	180
33	8x11	120	10x20	180	10x20	190	13x21	170	13x25	220	13x25	190	16x26	190
	10x12	160					13x25	200			16x26	230	16x36	240
47	10x12	180	13x21	270	13x21	240	13x21	330	16x26	340	16x26	280	16x36	300
	10x15	210			13x25	290	13x25				16x36	350	18x42	360
68	10x15	241	13x25	300	13x25	330	16x26	350	16x32	370	16x32	380	22x42	400
											18x36			
100	10x16	250	13x25	330	16x26	410	16x32	430	18x36	460	18x36	480		
	10x20	385	16x26	400										
150	13x25	414	16x32	435	16x36	450	18x42	460	22x42	480				
220	13x25	590	16x32	550	18x36	580	22x42	680						
			16x36	620	18x42	650								
330	13x25	600	18x36	770	18x42	780								
	16x26	720	18x42	850	22x42	920								
470	16x26	740	22x42	980										
	16x23	875												
680	16x36	1200												
1000	18x42	1340												
	22x42	1500												