

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



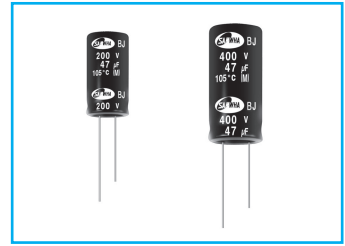
Upgrade

BJ

For PSU, High Ripple, Long Life Series

- High reliability withstanding 12000 hours load life at 105°C
- Suitable for CFL, adapter and power supply
- Complied to the RoHS directive

LL
Long Life

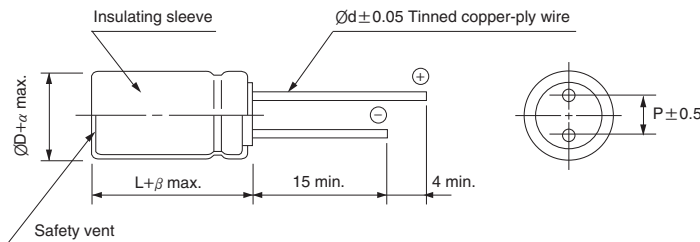


BL → BJ
Long life

Item	Characteristics																											
Operating temperature range	-40 ~ +105°C (160 ~ 250WV), -25 ~ +105°C (350 ~ 500WV)																											
Leakage current max.	$I = 0.04CV + 100\mu A$ (after 1 minutes), $I = 0.02CV + 25\mu A$ (after 5 minutes)																											
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C																											
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <tr> <td>WV</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> <td>500</td> </tr> <tr> <td>tanδ</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> </tr> </table>	WV	160	200	250	350	400	420	450	500	tan δ	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.24									
	WV	160	200	250	350	400	420	450	500																			
tan δ	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.24																				
Low temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>WV</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> <td>500</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>	WV	160	200	250	350	400	420	450	500	Z-25°C/Z+20°C	3	3	3	6	6	6	6	6	Z-40°C/Z+20°C	4	4	4	-	-	-	-	-
	WV	160	200	250	350	400	420	450	500																			
	Z-25°C/Z+20°C	3	3	3	6	6	6	6	6																			
Z-40°C/Z+20°C	4	4	4	-	-	-	-	-																				
Load life	<p>After an application of DC bias voltage plus the rated AC ripple current for 12000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.</p> <table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within $\pm 20\%$ of initial value</td> </tr> <tr> <td>tanδ</td> <td>Less than 200% of specified value</td> </tr> </table> <p>500WV products are for 10000 hours</p>	Leakage current	Less than specified value	Capacitance change	Within $\pm 20\%$ of initial value	tan δ	Less than 200% of specified value																					
Leakage current	Less than specified value																											
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tan δ	Less than 200% of specified value																											
Shelf life (at 105°C)	After 1000 hours no load test, leakage current, capacitance and tan δ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4																											

DRAWING

Unit : mm



ØD	10	12.5	16	18	20
P	5.0	5.0	7.5	7.5	10.0
Ød	0.6	0.6	0.8	0.8	0.8
β	2.0			3.0	
α	0.5			1.0	

MINIATURE TYPES

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

WV	µF	Frequency	120Hz	1kHz	10kHz	50kHz	100kHz \leq
160~450	~ 15		0.30	0.60	0.90	0.95	1.00
	22 ~ 47		0.40	0.70	0.90	0.95	1.00
	68 ~		0.50	0.80	0.90	0.95	1.00
500	~ 39		0.40	0.70	0.90	0.95	1.00
	47 ~		0.50	0.80	0.90	0.95	1.00

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

BJ series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF \diagdown WV	160		200		250		350	
4.7							10 × 12.5	180
6.8					10 × 12.5	290	10 × 16	280
10	10 × 16	325	10 × 16	370	10 × 16	370	10 × 20	420
22	10 × 16	520	10 × 20	580	10 × 20	580	12.5 × 20	675
27	10 × 16	555	10 × 20	625	10 × 20	600	12.5 × 20	713
33	10 × 16	690	10 × 20	750	12.5 × 20	775	16 × 20	780
39	10 × 20	690	12.5 × 20	763	12.5 × 20	805	16 × 20	800
47	10 × 20	840	12.5 × 20	1000	12.5 × 20	1000	16 × 25	1125
68	12.5 × 20	875	12.5 × 25	1080	16 × 20	1100	18 × 25	1220
			16 × 20	1100				
82	12.5 × 25	945	16 × 25	1120	16 × 20	1340	18 × 25	1370
100	12.5 × 25	1210	16 × 25	1304	16 × 25	1400	18 × 31.5	1470
	16 × 20				18 × 20			
120	16 × 25	1325	16 × 25	1428	18 × 25	1495	18 × 35.5	1680
150	16 × 25	1495	18 × 25	1570	18 × 25	1740	18 × 40	1884
180	16 × 25	1620	18 × 25	1600	18 × 31.5	1840	20 × 41	2100
220	18 × 25	1900	18 × 31.5	2020	18 × 35.5	2000		
270	16 × 35.5	2000	18 × 35.5	2300				
330	16 × 40	2280	18 × 40	2500				
470	18 × 45	2804						

μF \diagdown WV	400		420		450		500	
4.7	10 × 16	220			10 × 16	220		
6.8	10 × 16	280			10 × 16	330		
					10 × 20	400		
10	10 × 20	420	10 × 20	420	10 × 20	400	12.5 × 20	413
					12.5 × 20	480		
15	12.5 × 20	480	12.5 × 20	480	12.5 × 20	480	12.5 × 25	440
					12.5 × 25	600		
22	12.5 × 25	720	12.5 × 25	745	12.5 × 25	890	16 × 25	675
			16 × 20	780	16 × 20	900		
27	16 × 20	730	16 × 20	875	16 × 20	950	16 × 25	823
33	16 × 20	960	12.5 × 30	980	16 × 25	1095	16 × 31.5	880
			16 × 25	1035	18 × 20		18 × 25	
39	16 × 20	1000	16 × 25	1050	16 × 25	1100	16 × 31.5	1033
47	16 × 25	1080	12.5 × 40	1125	18 × 25	1150	18 × 31.5	1033
	18 × 20		16.5 × 25	1125				
68	16 × 31.5	1190	18 × 25	1150	18 × 31.5	1180	18 × 40	1200
82	18 × 31.5	1490	18 × 31.5	1450	18 × 35.5	1430	18 × 40	1340
100	18 × 35.5	1810	18 × 35.5	1700	18 × 35.5	1740	20 × 41	1600
					18 × 40	1740		
120	18 × 40	1824	18 × 40	1700	18 × 45	1740		
150	20 × 41	2040	20 × 41	2000				

↑ Ripple current (mA rms) at 105°C, 100kHz
 ↑ Case size $\varnothing D \times L$ (mm)