

ALUMINUM ELECTROLYTIC CAPACITORS

>SJ Low Impedance and High ripple Series

- Features: 105°C, 1000~5000hrs Low Impedance and High ripple
- Recommended Applications : AV(TV, Video, Audio), Monitor/Computer, OA/HA/Communication, Converter/Inverter, Adapter, SMPS
- Corresponding product to RoHS

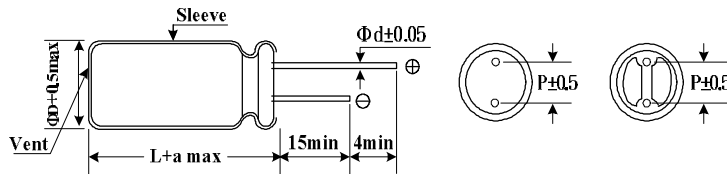
>SJ
↑ High ripple
RSC



Specifications

Item	Characteristics																											
Operating Temperature Range	-40 ~ +105°C																											
Rated Voltage Range (WV)	6.3 ~ 100VDC																											
Rated Capacitance Range	5.6 ~ 6800 µF																											
Capacitance Tolerance (20°C)	± 20 % at 120Hz																											
Leakage Current (MAX) (20°C)	$I \leq 0.01CV$ or $3\mu A$, whichever is greater. (After rated voltage applied for 2 minutes) $I =$ Leakage Current (μA) $C =$ Nominal Capacitance (μF) $V =$ Rated Voltage (V)																											
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	<table border="1"> <thead> <tr> <th>WV</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>tan δ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table> <p>When nominal capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.</p>	WV	6.3	10	16	25	35	50	63	100	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08									
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Low Temperature Stability Impedance Ratio (Max)	<table border="1"> <thead> <tr> <th>Z(120Hz) WV</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C) / Z(20°C)</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(20°C)</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Z(120Hz) WV	6.3	10	16	25	35	50	63	100	Z(-25°C) / Z(20°C)	2	2	2	2	2	2	2	2	Z(-40°C) / Z(20°C)	3	3	3	3	3	3	3	3
Z(120Hz) WV	6.3	10	16	25	35	50	63	100																				
Z(-25°C) / Z(20°C)	2	2	2	2	2	2	2	2																				
Z(-40°C) / Z(20°C)	3	3	3	3	3	3	3	3																				
Endurance	<p>After applying rated voltage with max ripple current for 1000~5000 hours at 105°C, the capacitor shall meet the following requirement.</p> <table border="1"> <thead> <tr> <th>Case (ψ)</th> <th>Life time (hrs)</th> </tr> </thead> <tbody> <tr> <td>L=7</td> <td>1000</td> </tr> <tr> <td>$\psi D \leq 6.3$</td> <td>2000</td> </tr> <tr> <td>$\psi D = 8$</td> <td>3000</td> </tr> <tr> <td>$\psi D = 10$</td> <td>4000</td> </tr> <tr> <td>$\psi D \geq 13$</td> <td>5000</td> </tr> </tbody> </table> <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within±25% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value</td> </tr> </tbody> </table> <p>*If dimension is down size, Endurance will be less 1000 hours than standard.</p>	Case (ψ)	Life time (hrs)	L=7	1000	$\psi D \leq 6.3$	2000	$\psi D = 8$	3000	$\psi D = 10$	4000	$\psi D \geq 13$	5000	Capacitance Change	Within±25% of the initial value	Dissipation Factor	Not more than 200% of the specified value	Leakage Current	Not more than the specified value									
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L=7	1000																											
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$\psi D \geq 13$	5000																											
Capacitance Change	Within±25% of the initial value																											
Dissipation Factor	Not more than 200% of the specified value																											
Leakage Current	Not more than the specified value																											
Shelf Life	After placed at 105°C without voltage applied for 1000 hours (500 hours for L=7), the capacitor shall meet the same requirement as Endurance.																											

Dimensions [mm]



ϕD	4	5	6.3	8	10	13	16	18
P	1.5	2	2.5	3.5	5.0	5.0	7.5	7.5
ϕd	0.45	0.5 (0.45)	0.5 (0.45)	0.6 (0.5)	0.6	0.6	0.8	0.8
a	1.0	1.5 (1.0)	1.5 (1.0)	1.5 (1.0)	1.5	2.0	2.0	2.0

() : L = 7

Multiplier for Ripple Current

Frequency coefficient		50	120	1K	10K	100K
Cap (μF)	Freq. (Hz)					
5.6 ~ 390		0.60	0.70	0.85	0.95	1.00
470 ~ 1000		0.65	0.75	0.90	0.98	1.00
1200 ~ 6800		0.75	0.80	0.95	1.00	1.00

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■ Dimensions, Rated Ripple Current, Max Impedance

Capacitance (μF)	Rated (Surge) Voltage														
	6.3V (8)			10V (13)			16V (20)			25V (32)			35V (44)		
	SIZE	Ripple	Z	SIZE	Ripple	Z	SIZE	Ripple	Z	SIZE	Ripple	Z	SIZE	Ripple	Z
10													4x7	130	0.96
15										4x7	130	0.94	5x7	190	0.57
18							4x7	130	0.92	5x7	170	0.69	5x7	210	0.47
27				4x7	130	0.89	5x7	190	0.61	5x7	210	0.46	5x11	230	0.37
33				5x7	160	0.75	5x7	210	0.45	5x11	220	0.42	5x11	250	0.30
39	4x7	130	0.85	5x7	175	0.64	5x11	220	0.43	5x11	230	0.36	6.3x7	300	0.25
47	5x7	175	0.7	5x7	190	0.53	5x11	230	0.36	5x11	250	0.3	6.3x11	380	0.15
56	5x7	190	0.56	5x7	210	0.44	5x11	250	0.3	6.3x7	300	0.24	6.3x11	410	0.13
													8x7	380	0.16
68	5x7	210	0.43	5x11	210	0.44	6.3x7	300	0.24	6.3x11	340	0.19	8x11	510	0.12
										8x7	310	0.22			
100	5x11	200	0.43	5x11	250	0.3	6.3x11	370	0.16	6.3x11	410	0.13	8x11	620	0.105
	6.3x7	240	0.35				8x7	350	0.18	8x7	380	0.15			
120	5x11	220	0.38	6.3x7	300	0.23	6.3x11	410	0.13	8x11	560	0.12	8x11	680	0.088
	6.3x7	270	0.29				8x7	380	0.15						
150	5x11	250	0.3	8x7	350	0.18	8x11	510	0.12	8x11	630	0.105	8x11	760	0.072
	6.3x7	300	0.23												
180	8x7	340	0.18	8x7	380	0.15	8x11	560	0.11	8x11	690	0.088	8x15	910	0.068
													10x12.5	930	0.065
220	8x7	380	0.15	6.3x11	410	0.13	8x11	620	0.1	8x11	760	0.072	10x12.5	1030	0.053
270	6.3x11	370	0.16	8x11	580	0.12	8x11	690	0.088	8x15	900	0.068	8x20	1250	0.041
										10x12.5	930	0.065			
330	6.3x11	410	0.13	8x11	640	0.1	8x11	760	0.072	10x12.5	1030	0.053	10x16	1430	0.038
470	8x11	680	0.086	8x11	760	0.072	8x15	1000	0.056	8x20	1250	0.041	10x20	1820	0.026
							10x12.5	1030	0.053	10x16	1430	0.038			
560	8x11	760	0.072	8x15	910	0.068	8x20	1140	0.049	10x20	1650	0.032	10x25	2150	0.023
				10x12.5	940	0.064	10x16	1300	0.046						
680	8x15	900	0.062	10x12.5	1030	0.053	8x20	1250	0.041	10x20	1820	0.026	13x20	2360	0.023
							10x16	1430	0.038						
820	8x15	1000	0.056	8x20	1130	0.05	10x20	1650	0.032	10x25	2150	0.023	13x25	2510	0.02
				10x16	1300	0.046									
1000	10x12.5	1030	0.053	8x20	1250	0.041	10x20	1820	0.026	13x20	2360	0.021	13x25	2770	0.018
				10x16	1430	0.038									
1200	8x20	1250	0.041	10x20	1820	0.026	10x25	2150	0.023	13x25	2510	0.02	13x30	3290	0.016
	10x16	1430	0.038										16x20	3140	0.018
1500	10x20	1820	0.026	10x25	2150	0.023	13x20	2360	0.021	13x25	2770	0.018	13x35	3400	0.015
1800	10x25	1940	0.025	13x20	2230	0.022	13x25	2510	0.02	13x30	3290	0.016	16x25	3460	0.016
										16x20	3140	0.018			
2200	10x25	2150	0.023	13x20	2360	0.021	13x25	2770	0.018	13x35	3400	0.015			
2700	13x20	2230	0.022	13x25	2510	0.02	13x30	3290	0.016	16x25	3460	0.016			
							16x20	3140	0.018						
3300	13x20	2360	0.021	13x25	2770	0.018	13x35	3400	0.015						
3900	13x25	2770	0.018	13x30	3290	0.016	16x25	3460	0.016						
				16x20	3140	0.018									
4700	13x30	3290	0.016	13x35	3400	0.015									
5600	13x35	3400	0.015	16x25	3460	0.016									
	16x20	3140	0.018												
6800	16x25	3460	0.016												

☆ Size: D φ x L (mm) ☆ Ripple Current : mA/rms, 105°C, 100KHz ☆ Impedance : Z(Ω), 20°C, 100KHz

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>SJ Series Low Impedance and High ripple

■ Dimensions, Rated Ripple Current, Max Impedance

Capacitance (μF)	Rated (Surge) Voltage								
	50V (63)			63V (79)			100V (125)		
	SIZE	Ripple	Z	SIZE	Ripple	Z	SIZE	Ripple	Z
5.6	4x7	130	1						
6.8	5x7	170	0.74				5x11	125	1.4
10	5x7	210	0.5				6.3x11	170	0.95
15	6.3x7	220	0.38	5x11	136	1.19	6.3x 11	210	0.57
	5x11	215	0.48						
22	6.3x7	300	0.26	6.3x11	176	0.88	8x11	330	0.44
	5x11	240	0.34						
27	8x7	340	0.21	6.3x11	192	0.58	8x11	360	0.36
33	8x7	380	0.17	6.3x11	216	0.47	8x15	375	0.3
39	6.3x11	330	0.16	8x11	308	0.42	8x15	450	0.25
47	6.3x11	360	0.15	8x11	336	0.35	10x12.5	450	0.24
56	6.3x11	390	0.14	8x11	400	0.35	8x20	570	0.19
68	8x11	600	0.11	8x15	488	0.26	10x16	580	0.18
				10x12.5	500	0.24			
82	8x11	660	0.09	8x15	536	0.22	10x20	750	0.13
				10x12.5	552	0.20	13x16	740	0.13
100	8x11	730	0.074	10x16	640	0.16	10x25	880	0.12
120	8x15	950	0.065	8x20	656	0.16	13x20	1050	0.094
				10x16	760	0.15			
150	10x12.5	980	0.061	10x20	808	0.13	13x25	1100	0.085
				13x16	832	0.13			
180	8x20	1190	0.046	10x20	880	0.11	13x25	1200	0.071
				13x16	912	0.11			
220	10x16	1370	0.042	10x25	1040	0.099	13x30	1410	0.063
							16x20	1300	0.071
270	10x20	1580	0.03	13x20	1200	0.081	13x35	1560	0.052
							16x25	1600	0.053
							18x20	1470	0.069
330	10x25	1870	0.028	13x25	1480	0.058	13x40	1700	0.046
390	13x20	1870	0.028	13x30	1640	0.063	16x32	1750	0.041
				16x20	1448	0.073	18x25	1620	0.049
470	13x20	2050	0.027	13x30	1800	0.061	16x36	1890	0.033
				16x20	1592	0.061	18x32	1780	0.039
560	13x25	2410	0.023	13x35	1960	0.047	16x40	2080	0.03
				16x25	2040	0.043	18x36	2060	0.031
680	13x30	2860	0.021	13x40	2224	0.039	18x40	2570	0.028
				18x20	1960	0.051			
820	13x35	2960	0.019	16x32	2248	0.035			
	16x20	2730	0.023	18x25	2224	0.042			
1000	16x32	3350	0.021	16x36	2272	0.028			
				18x32	2616	0.034			
1200				16x40	2672	0.026			
				18x36	2648	0.027			
1500				18x40	2736	0.024			

☆ Size: D φ x L (mm) ☆ Ripple Current : mA/rms, 105°C, 100KHz ☆ Impedance : Z(Ω), 20°C, 100KHz