

ALUMINUM ELECTROLYTIC CAPACITORS



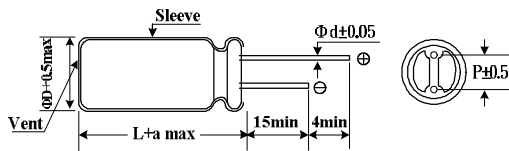
- Features : 105°C 4000~10000hrs Low Impedance and long Life
- Recommended Applications:
Applicable for SMPS, Adaptor,Charger,Monitor/Computer
- Corresponding product to RoHS



Specifications

Item	Characteristics																											
Operating Temperature Range	-40 ~ +105°C																											
Rated Voltage Range	6.3~63VDC																											
Rated Capacitance Range	10 ~ 15000μF																											
Capacitance Tolerance	± 20 % at 120Hz , 20°C																											
Leakage Current (MAX) (20°C)	I=0.01CV or 3(μA) , whichever is greater. (After rated voltage applied for 2 minutes) I= Leakage Current (μA) C= Nominal Capacitance (μF) V= Rated Voltage (V) (20°C)																											
Dissipation Factor (MAX) (tanδ) (120Hz ,20°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> </tr> <tr> <td>tanδ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.14</td> <td>0.14</td> </tr> </table> <p>When nominal capacitance is over 1000uF, Tanδ shall be added 0.02 to the listed value with increase of every 1000uF. Down size tanδ add 3%.</p>	WV	6.3	10	16	25	35	50	63	tanδ	0.22	0.19	0.16	0.14	0.12	0.14	0.14											
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Low Temperature Stability Impedance Ratio (MAX)	<table border="1"> <tr> <td>Z(120Hz)</td> <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> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td></td> <td>4</td> <td>3</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></td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Z(120Hz)	WV	6.3	10	16	25	35	50	63	Z-25°C / Z+20°C		4	3	2	2	2	2	2	Z-40°C / Z+20°C		8	6	4	3	3	3	3
Z(120Hz)	WV	6.3	10	16	25	35	50	63																				
Z-25°C / Z+20°C		4	3	2	2	2	2	2																				
Z-40°C / Z+20°C		8	6	4	3	3	3	3																				
Endurance	<p>After applying rated voltage with rated ripple current for 4000~10000hours at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td colspan="3">Within ± 25 % of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td colspan="3">200% or less of initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="3">initial specified value or less</td> </tr> </table> <table border="1"> <tr> <td>VDC</td> <td>φ5~6.3φ</td> <td>φ8~10φ</td> <td>φ12.5~18φ</td> </tr> <tr> <td>6.3~10(V)</td> <td>4000hrs</td> <td>6000hrs</td> <td>8000hrs</td> </tr> <tr> <td>16~100(V)</td> <td>5000hrs</td> <td>7000hrs</td> <td>10000hrs</td> </tr> </table>	Capacitance Change	Within ± 25 % of initial value			Dissipation Factor	200% or less of initial specified value			Leakage Current	initial specified value or less			VDC	φ5~6.3φ	φ8~10φ	φ12.5~18φ	6.3~10(V)	4000hrs	6000hrs	8000hrs	16~100(V)	5000hrs	7000hrs	10000hrs			
Capacitance Change	Within ± 25 % of initial value																											
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VDC	φ5~6.3φ	φ8~10φ	φ12.5~18φ																									
6.3~10(V)	4000hrs	6000hrs	8000hrs																									
16~100(V)	5000hrs	7000hrs	10000hrs																									
Shelf Life	After placed at 105°C without voltage applied for 1000 hours, the capacitors shall meet the same requirement as load life.																											

Diagram of Dimensions



ψD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ψd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.5	1.5	1.5	1.0	2.0	2.0	2.0

Multiplier for Ripple Current

Frequency coefficient

Cap(μF)	120	1K	10K	100K
6.8to180	0.40	0.75	0.90	1.00
220to560	0.50	0.85	0.94	1.00
680to1800	0.60	0.87	0.95	1.00
2200to3900	0.75	0.90	0.95	1.00
4700μF Higher	0.85	0.95	0.98	1.00

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■ Dimensions, Rated Ripple Current

Capacitance (μ F)	Rated Voltage(V)											
	6.3			10			16			25		
	Size	Ripple	ESR	Size	Ripple	ESR	Size	Ripple	ESR	Size	Ripple	ESR
47												
56							5x11	210	0.720			
100				5x11	210	0.72	6.3x11	340	0.380	6.3x11	340	0.380
150	5x11	210	0.720							8x11	640	0.200
220				6.3x11	340	0.38	8x11	640	0.200	8x11	640	0.200
330	6.3x11	340	0.380				8x15	701	0.160	8x15	840	0.160
470				8x11	640	0.200	8x15	840	0.160	10x15	1210	0.084
680	8x11	640	0.200	8x15	840	0.160	10x15	1210	0.084	10x20	1400	0.062
820	8x15	840	0.160							10x25	1650	0.052
1000	10x12	865	0.120	10x15	1210	0.084	10x20	1400	0.062	13x20	1900	0.046
1500	8x20	1050	0.110	10x20	1400	0.062	10x25	1650	0.052	13x25	2230	0.034
	10x15	1210	0.084									
2200	10x20	1400	0.062	10x25	1650	0.052	13x25	2230	0.034	13x35	2880	0.027
2700	10x25	1650	0.052	13x20	1900	0.046	13x30	2650	0.030	16x25	2930	0.028
3300	13x20	1900	0.046	13x25	2230	0.034	13x35	2880	0.027	16x32	3450	0.025
3900	13x25	2230	0.034	13x30	2650	0.030	13x40	3350	0.024	18x32	4170	0.015
4700	13x30	2650	0.030	13x35	2880	0.027	16x32	3450	0.028	18x36	4280	0.014
5600	13x35	2880	0.027	13x40	3350	0.024	16x36	3610	0.018			
				16x25	2930	0.028	18x32	4170	0.015			
6800	13x40	3350	0.024	16x32	3450	0.025	18x36	4220	0.014			
	16x25	2930	0.028									
8200	16x32	3450	0.025	16x36	3610	0.018						
10000	16x36	3610	0.018	18x36	4220	0.014						
12000	18x32	4170	0.015									
15000	18x36	4220	0.014									

Capacitance (μ F)	Rated Voltage(V)								
	35			50			63		
	Size	Ripple	ESR	Size	Ripple	ESR	Size	Ripple	ESR
10				5x11	120	3.50	5x11	55	2.300
22				5x11	210	2.300			
33	5x11	210	0.720	6.3x11	340	1.200	6.3x11	115	1.200
47	6.3x11	340	0.380	6.3x11	340	1.200			
56							8x11	232	0.630
100				8x11	555	0.630			
120				8x15	730	0.450	10x16	357	0.310
	8x11	640	0.200	8x20	910	0.330			
180							10x20	466	0.210
220	8x15	840	0.160	10x16	1050	0.310	10x25	531	0.200
270							10x30	663	0.150
							13x20	690	0.160
330	10x20	1400	0.062	10x20	1400	0.210	13x25	784	0.120
470	10x25	1650	0.052	10x30	1690	0.150	13x30	905	0.100
				13x20	1660	0.160			
560				13x25	1950	0.120	13x35	1050	0.083
680	10x30	1910	0.044	13x30	2310	0.100	13x40	1180	0.071
	13x20	1900	0.046						
820	13x25	2230	0.034	13x35	2510	0.083	16x32	1570	0.054
1000	13x25	2230	0.034	16x25	2555	0.073	16x36	1790	0.045
1200	13x30	2650	0.030	16x32	3010	0.054	16x40	2020	0.040
1500	13x35	2880	0.027	16x36	3150	0.045			
1800	13x40	3350	0.024	18x32	3635	0.047			
2200	16x32	3450	0.025	18x36	3680	0.040			
2700	16x36	3610	0.018	18x40	3800	0.036			
3300	18x36	4220	0.014						

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