

ALUMINUM ELECTROLYTIC CAPACITORS



EJ Series

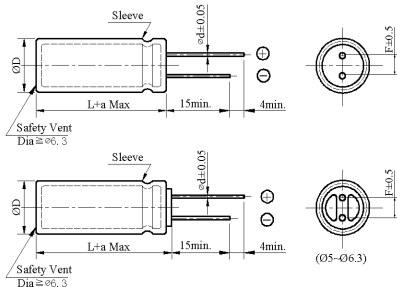
- Low impedance and High ripple current.
- Load life 3,000 to 5,000 hours at 105°C.



◆ SPECIFICATIONS

Item	Performance Characteristics																
Category Temperature Range	-55~+105°C																
Working Voltage Range	6.3 ~ 63Vdc																
Capacitance Range	10 ~ 10,000μF																
Capacitance Tolerance	±20% (at 25°C and 120Hz)																
Dissipation Factor (tanδ) (at 25°C, 120Hz)	<table border="1"> <tr> <td>Rated Voltage (V)</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(Max)</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> </tr> </table> <p>The above values should be increased by 0.02 for every additional 1000μF</p>	Rated Voltage (V)	6.3	10	16	25	35	50	63	tanδ(Max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09
Rated Voltage (V)	6.3	10	16	25	35	50	63										
tanδ(Max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09										
Leakage Current	I=0.01CV or 3μA whichever is greater I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 2 minutes.																
Low Temperature Characteristics Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated voltage (V)</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(-55°C)/Z(+20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table> <p style="text-align: right;">(at 120Hz)</p>	Rated voltage (V)	6.3	10	16	25	35	50	63	Z(-55°C)/Z(+20°C)	4	3	3	3	3	3	3
Rated voltage (V)	6.3	10	16	25	35	50	63										
Z(-55°C)/Z(+20°C)	4	3	3	3	3	3	3										
Endurance	<p>The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 3,000~5,000 hours at 105°C</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≅ ±25% of the initial value</td> <td>Size</td> <td>Life time (hours)</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≅ 200% of the specified value</td> <td>≅ 6.3Φ</td> <td>3,000</td> </tr> <tr> <td>Leakage current</td> <td>≅ specified value</td> <td>= 8 Φ</td> <td>4,000</td> </tr> <tr> <td></td> <td></td> <td>≅ 10 Φ</td> <td>5,000</td> </tr> </table>	Capacitance change	≅ ±25% of the initial value	Size	Life time (hours)	Dissipation factor(tanδ)	≅ 200% of the specified value	≅ 6.3Φ	3,000	Leakage current	≅ specified value	= 8 Φ	4,000			≅ 10 Φ	5,000
Capacitance change	≅ ±25% of the initial value	Size	Life time (hours)														
Dissipation factor(tanδ)	≅ 200% of the specified value	≅ 6.3Φ	3,000														
Leakage current	≅ specified value	= 8 Φ	4,000														
		≅ 10 Φ	5,000														
Shelf Life	<p>The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 105°C without voltage applied.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≅ ±25% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≅ 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≅ 200% of the specified value</td> </tr> </table>	Capacitance change	≅ ±25% of the initial value	Dissipation factor(tanδ)	≅ 200% of the specified value	Leakage current	≅ 200% of the specified value										
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Dissipation factor(tanδ)	≅ 200% of the specified value																
Leakage current	≅ 200% of the specified value																
Others	Conforms to JIS-C-5101-4 (1998), characteristic W.																

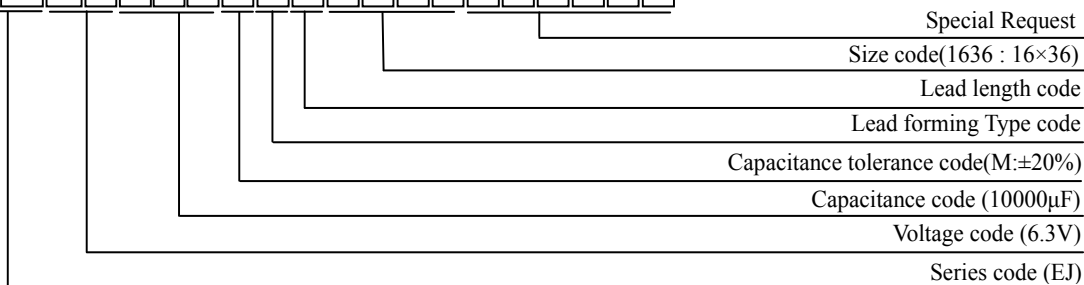
◆ DIMENSIONS (mm)



ΦD	5	6.3	8	10	12.5 L<35	12.5 L≥35	16	18
ΦD	ΦD + 0.5 Max							
Φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0		7.5	7.5
a	L + 1.5 Max				≅ 35 L+1.5Max ≧ 40 L+2.0 Max		L + 1.5 Max	

◆ PART NUMBERING SYSTEM(Example : 6.3V 10000μF)

E J 0 J 1 0 3 M N N 1 6 3 6



ALUMINUM ELECTROLYTIC CAPACITORS



EJ Series

◆ Case size & Permissible rated ripple current:

Nominal capacitance (uF)	6.3V				10V			
	Case size DΦ×L (mm)	Impedance (Ωmax/100kHz)		Max.Rated ripple current @105°C 100kHz (mA rms)	Case size DΦ×L (mm)	Impedance (Ωmax/100kHz)		Max.Rated ripple current @105°C 100kHz (mA rms)
		20°C	-10°C			20°C	-10°C	
100	5×11	0.650	3.600	155	5×11	0.580	2.300	210
220	6.3×11	0.400	1.600	255	6.3×11	0.220	0.870	340
330	6.3×11	0.220	0.870	340	8×11.5	0.210	0.850	410
470	8×11.5	0.180	0.800	400	8×11.5	0.130	0.520	640
560	8×11.5	0.170	0.750	460	8×15	0.120	0.480	675
680	8×11.5	0.130	0.520	640	8×15	0.087	0.350	840
820	8×15	0.095	0.480	730	8×20	0.085	0.330	875
1000	8×15	0.087	0.350	840	10×16	0.060	0.240	1210
1200	8×20	0.069	0.270	1050	10×20	0.046	0.180	1400
1500	10×20	0.046	0.180	1400	10×20	0.045	0.180	1440
2200	10×20	0.045	0.180	1440	12.5×20	0.035	0.120	1900
2700	10×30	0.035	0.120	1910	12.5×25	0.034	0.110	1945
3300	12.5×20	0.030	0.120	1900	12.5×25	0.027	0.089	2230
3900	12.5×25	0.027	0.089	2230	12.5×30	0.024	0.078	2650
4700	12.5×30	0.024	0.078	2650	12.5×35	0.020	0.065	2880
5600	12.5×35	0.020	0.065	2880	12.5×40	0.017	0.056	3350
6800	12.5×40	0.017	0.056	3350	16×31.5	0.017	0.050	3450
8200	16×31.5	0.017	0.050	3450	16×35.5	0.015	0.044	3610
10000	16×35.5	0.015	0.044	3610	16×40	0.013	0.038	4080

Nominal capacitance (uF)	16V				25V			
	Case size DΦ×L (mm)	Impedance (Ωmax/100kHz)		Max.Rated ripple current @105°C 100kHz (mA rms)	Case size DΦ×L (mm)	Impedance (Ωmax/100kHz)		Max.Rated ripple current @105°C 100kHz (mA rms)
		20°C	-10°C			20°C	-10°C	
47	5×11	0.800	2.800	120	5×11	0.580	2.300	210
68	6.3×11	0.560	2.200	220	6.3×11	0.360	1.800	230
100	6.3×11	0.520	1.500	255	6.3×11	0.220	0.870	340
150	8×11.5	0.210	0.860	350	8×11.5	0.200	0.690	405
220	8×11.5	0.200	0.790	405	8×11.5	0.130	0.520	640
330	8×11.5	0.130	0.520	640	8×15	0.087	0.350	840
470	8×15	0.087	0.350	840	10×16	0.060	0.240	1210
560	8×20	0.085	0.340	865	10×20	0.058	0.230	1220
680	8×20	0.069	0.270	1050	10×20	0.046	0.180	1400
820	10×20	0.058	0.230	1220	10×25	0.042	0.170	1650
1000	10×20	0.046	0.180	1400	12.5×20	0.035	0.120	1900
1200	10×25	0.042	0.170	1650	12.5×25	0.034	0.110	1936
1500	12.5×20	0.035	0.120	1900	12.5×25	0.027	0.089	2230
2200	12.5×25	0.027	0.089	2230	12.5×35	0.020	0.065	2880
2700	12.5×30	0.024	0.078	2650	12.5×40	0.017	0.056	3350
3300	12.5×35	0.020	0.065	2880	16×31.5	0.017	0.050	3450
3900	12.5×40	0.017	0.056	3350	16×35.5	0.015	0.044	3610
4700	16×31.5	0.017	0.050	3450	16×40	0.013	0.038	4080
5600	16×35.5	0.015	0.044	3610				
6800	16×40	0.013	0.038	4080				

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EJ Series

◆ Case size & Permissible rated ripple current:

Nominal capacitance (uF)	35V				50V			
	Case size DΦ×L (mm)	Impedance (Ω _{max} /100kHz)		Max. Rated ripple current @105°C 100kHz (mA rms)	Case size DΦ×L (mm)	Impedance (Ω _{max} /100kHz)		Max. Rated ripple current @105°C 100kHz (mA rms)
		20°C	-10°C			20°C	-10°C	
10	5×11	1.500	3.800	100	5×11	1.450	3.500	105
22	5×11	0.750	3.200	160	5×11	0.700	2.800	180
33	5×11	0.580	2.300	210	6.3×11	0.480	1.700	215
47	6.3×11	0.490	1.800	215	6.3×11	0.400	1.600	220
68	8×11.5	0.210	0.870	350	8×11.5	0.280	1.100	355
100	8×11.5	0.200	0.850	405	8×11.5	0.170	0.680	555
150	8×11.5	0.130	0.520	640	8×15	0.120	0.480	730
220	8×15	0.087	0.350	840	10×16	0.084	0.340	1050
330	10×16	0.060	0.240	1210	10×25	0.055	0.220	1440
470	10×20	0.046	0.180	1400	12.5×20	0.045	0.150	1660
560	10×25	0.042	0.170	1650	12.5×25	0.034	0.110	1950
680	10×30	0.031	0.120	1910	12.5×30	0.030	0.100	2310
820	12.5×25	0.030	0.110	1938	12.5×35	0.025	0.083	2510
1000	12.5×25	0.027	0.089	2230	16×25	0.025	0.075	2555
1200	12.5×30	0.024	0.078	2650	16×31.5	0.022	0.066	3010
1500	12.5×35	0.020	0.065	2880	16×35.5	0.019	0.057	3150
2200	16×31.5	0.017	0.050	3450	18×35.5	0.017	0.046	3680
2700	16×35.5	0.015	0.044	3610	18×40	0.014	0.038	3800
3300	16×40	0.013	0.038	4080				
3900	18×40	0.012	0.032	4280				

Nominal capacitance (uF)	63V			
	Case size DΦ×L (mm)	Impedance (Ω _{max} /100kHz)		Max. Rated ripple current @105°C 100kHz (mA rms)
		20°C	-10°C	
10	5×11	2.850	9.300	30
22	6.3×11	1.850	7.200	60
33	6.3×11	1.200	5.000	115
47	8×11.5	1.000	4.500	170
68	8×11.5	0.610	2.500	245
100	8×15	0.430	1.900	305
100	10×12.5	0.430	1.900	305
220	10×20	0.210	0.920	470
220	10×25	0.200	0.840	531
330	12.5×25	0.120	0.450	784
470	12.5×30	0.100	0.420	905
560	12.5×35	0.083	0.350	1050
680	12.5×40	0.071	0.300	1180
820	16×31.5	0.054	0.200	1570
1000	16×35.5	0.045	0.170	1790
1200	16×40	0.040	0.150	2020
1500	18×40	0.036	0.130	2330

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Cap.(uF)	Frequency (Hz)				
		50/60	120	1K	10K	100K
6.3 ~ 63	10 ~ 220	0.30	0.50	0.80	0.90	1.00
	330 ~ 820	0.57	0.71	0.90	0.98	1.00
	1000 ~ 10000	0.75	0.87	0.98	1.00	1.00