

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series LOW IMPEDANCE, HIGH RELIABILITY

低阻抗，高信賴度

- Low impedance at 100KHz  
100KHz 低阻抗
- Load life: 105°C 2000~4000hours  
壽命: 105°C 2000~4000 小時
- HIGH QUALITY  
高品質

### SPECIFICATIONS

Item 項目	Performance Characteristics 特性																																				
Operating Temperature Range 工作溫度範圍	-55°C~105°C																																				
Rated Voltage Range 額定電壓範圍	6.3~120V																																				
Capacitance Range 靜電容量範圍	0.22~18000																																				
Capacitance Tolerance 靜電容量誤差	±20%, 120Hz, 20°C																																				
Leakage Current 洩漏電流	$I=0.01CV$ or $3\mu A$ whichever is greater.(after 2 minutes) $I=0.01CV$ or $3\mu A$ 取較大值.(2 分鐘後) $I=$ Leakage Current ( $\mu A$ ), $C=$ Nominal Capacitance ( $\mu F$ ), $V=$ Rated Voltage (V) $I=$ 洩漏電流 ( $\mu A$ ), $C=$ 額定容量 ( $\mu F$ ), $V=$ 額定電壓 (V)																																				
Dissipation Factor ( $\tan \delta$ ) 散逸因素 (損失角正切值)	When nominal capacitance is over 1000 $\mu F$ , $\tan \delta$ shall be added 0.02 to the listed value with increase of every 1000 $\mu F$ . 額定容量超過 1000 $\mu F$ 時，額定容量每增加 1000 $\mu F$ ，以下損失角增加 0.02. <table border="1" data-bbox="432 1547 1449 1682"> <thead> <tr> <th>Rated voltage 額定電壓 (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>120</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>Tan <math>\delta</math> 損失角正切值</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>0.09</td> <td>0.08</td> <td>0.08</td> <td>(20°C 120Hz)</td> </tr> </tbody> </table>	Rated voltage 額定電壓 (V)	6.3	10	16	25	35	50	63	80	100	120	MAX	Tan $\delta$ 損失角正切值	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08	0.08	(20°C 120Hz)												
Rated voltage 額定電壓 (V)	6.3	10	16	25	35	50	63	80	100	120	MAX																										
Tan $\delta$ 損失角正切值	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08	0.08	(20°C 120Hz)																										
Low Temperature Stability Impedance Ratio(MAX) 低溫特性阻抗比率	<table border="1" data-bbox="432 1731 1398 1890"> <thead> <tr> <th>Rated Voltage 額定電壓 (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>120</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>4</td> <td>3</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> <td>(120Hz)</td> </tr> <tr> <td>Z(-55°C)/Z(+20°C)</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td></td> </tr> </tbody> </table>	Rated Voltage 額定電壓 (V)	6.3	10	16	25	35	50	63	80	100	120	MAX	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	2	2	2	2	(120Hz)	Z(-55°C)/Z(+20°C)	8	6	4	3	3	3	3	3	3	3	
Rated Voltage 額定電壓 (V)	6.3	10	16	25	35	50	63	80	100	120	MAX																										
Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	2	2	2	2	(120Hz)																										
Z(-55°C)/Z(+20°C)	8	6	4	3	3	3	3	3	3	3																											

# ALUMINUM ELECTROLYTIC CAPACITORS

Load Life 負荷壽命	After life test with rated ripple at conditions stated in the table below, the capacitors shall meet the following requirement. 依據以下壽命要求印加額定紋波電流後，電容需符合以下要求。		Case Dia	Life Time(hrs)
	Leakage Current 洩漏電流	Not more than the specified value 不超出規格值。	$\phi D \leq 8$	2000
	Capacitance Change 容量變化率	Within $\pm 25\%$ of initial value. 初始值 $\pm 25\%$ 以內	$\phi D = 10$	3000
	Dissipation Factor 散逸因素	Not more than 200% of the specified value 不超出規格值的 2 倍	$\phi D \geq 12$	4000
Shelf Life 放置壽命	After leaving capacitors under no load at 105°C for 1000 hours , the capacitors shall meet the following requirements. 電容放置在 105°C 無印加電壓的情況下儲存 1000 小時後，電容需符合以下要求。			
	Leakage Current 洩漏電流	Not more than the specified value 不超出規格值。		
	Capacitance Change 容量變化率	Within $\pm 25\%$ of initial value. 初始值 $\pm 25\%$ 以內		
	Dissipation Factor 散逸因素	Not more than 200% of the specified value 不超出規格值的 2 倍		
Standard 參照標準	According to JIS C 5101 依據 JIS C 5101 標準			

## Frequency coefficient

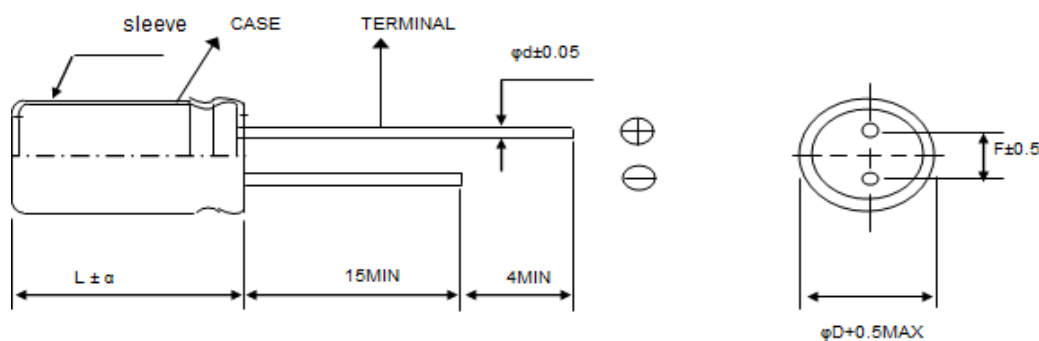
頻率系數

Frequency(Hz) Cap(uF)	60(50)	120	1k	10k	$\geq 100k$
0.22-33	0.45	0.55	0.75	0.90	1.00
39-330	0.60	0.70	0.85	0.95	1.00
390-1000	0.65	0.75	0.90	0.98	1.00
1200-18000	0.75	0.80	0.95	1.00	1.00

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

### DIMENSIONS 尺寸(mm)



$\phi D$	5	6.3	8	10	12/12.5/13	16	18
$\phi d$	0.5		0.6			0.8	
F	2.0	2.5	3.5	5.0		7.5	
$\alpha$	$L \leq 19: \alpha = 1.5, L \geq 20: \alpha = 2.0$						

### STANDARD SIZE , RIPPLE CURRENT, IMPEDANCE

尺寸, 紋波電流及阻抗標準

Ripple Current (mA 105°C, 100KHz) r.m.s

Rated voltage 6.3V (0J)				
Nominal capacitance (uF)	Size $\phi D \times L$ (mm)	Ripple Current (mA)	Impedance ( $\Omega$ MAX)	
			25°C, 100 KHz	-10°C, 100 KHz
100	6.3 x5	240	4.500	22.50
150	5 x11	200	0.570	1.200
220	5 x11	237	0.480	2.400
330	6.3 x8	320	0.280	0.600
	6.3 x11	350	0.210	0.480
	8 x7	380	0.450	2.250
470	6.3 x11	505	0.175	0.385
	8 x11.5	582	0.150	0.388
560	8 x11.5	621	0.140	0.327
680	6.3 x11	600	0.150	0.310
	8 x11.5	660	0.130	0.290
	10 x12.5	765	0.105	0.225
820	8 x11.5	660	0.130	0.650
	8 x16	755	0.108	0.400
	10 x12.5	870	0.080	0.240
1000	8 x11.5	755	0.108	0.540
	8 x16	850	0.086	0.190



# ALUMINUM ELECTROLYTIC CAPACITORS

	10 x12.5	1050	0.070	0.145
1200	8 x15	878	0.119	0.595
	8 x20	1050	0.070	0.150
	10 x16	1230	0.060	0.130
1500	8 x16	1170	0.068	0.130
	10 x12.5	870	0.080	0.400
1800	8 x 20	1225	0.058	0.290
	12.5 x16	1450	0.049	0.245
2200	8 x20	1480	0.048	0.110
	10 x16	1440	0.055	0.115
2700	10 x23	1780	0.040	0.088
	16 x16	1950	0.041	0.087
3300	10 x20	1700	0.042	0.210
	10 x25	1785	0.036	0.180
	10 x30	1917	0.032	0.073
	12.5 x16	1680	0.042	0.210
	12.5 x25	1950	0.035	0.080
3900	12.5 x25	2230	0.026	0.055
	18 x16	2210	0.043	0.090
4700	10 x28	2280	0.032	0.066
	12.5 x30	2650	0.024	0.052
	16 x25	2790	0.022	0.050
	18 x20	2860	0.026	0.054
5600	12.5 x35	2880	0.020	0.046
	16 x20	2530	0.027	0.135
6800	12.5 x40	3350	0.017	0.850
	16 x25	2930	0.020	0.048
	18 x20	2860	0.026	0.054
8200	16 x31.5	3450	0.017	0.035
10000	16 x35.5	3610	0.015	0.034
	18 x25	3140	0.019	0.095
12000	16 x40	4100	0.012	0.028
	18 x31.5	4170	0.015	0.075
15000	18 x35.5	4220	0.014	0.032
18000	18 x40	4300	0.011	0.024

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

Rated voltage 10V (1A)				
Nominal capacitance (uF)	Size	Ripple Current (mA)	Impedance ( $\Omega$ MAX)	
	$\phi$ DxL(mm)		25°C, 100 KHz	-10°C, 100 KHz
4.7	5 x11	85	2.500	12.50
22	5 x11	95	0.725	2.370
47	5 x11	150	0.660	1.980
100	5 x7	190	0.593	1.247
	5 x11	200	0.570	1.200
	6.3 x7	266	0.413	2.065
150	6.3 x11	273	0.230	1.150
180	5 x11	280	0.300	1.500
	6.3 x11	273	0.230	1.150
220	5 x11	320	0.435	2.180
	6.3 x11	350	0.210	0.480
	8 x5	140	0.480	2.400
330	6.3 x9	350	0.250	1.250
	6.3 x11	505	0.170	0.385
	8 x8	517	0.171	0.385
	8 x11.5	582	0.150	0.338
390	8 x11.5	620	0.140	0.314
470	6.3 x11	425	0.192	0.960
	8 x9	590	0.160	0.332
	8 x11.5	660	0.130	0.290
	12.5 x40	700	0.063	0.143
560	8 x9	660	0.140	0.293
	8 x11.5	700	0.120	0.265
680	6.3 x16	680	0.120	0.265
	8 x11.5	755	0.108	0.240
	10 x12.5	870	0.080	0.400
820	8 x11.5	826	0.092	0.460
	8 x16	900	0.082	0.180
	10 x12.5	960	0.075	0.153
1000	8 x11.5	853	0.093	0.205
	8 x16	950	0.078	0.170
	10 x12.5	1050	0.070	0.145
	10 x20	1400	0.053	0.115
1200	8 x20	1125	0.068	0.150
	10 x16	1315	0.058	0.120
1500	8 x20	1330	0.065	0.168
	10 x20	1530	0.042	0.093
	12.5 x16	1450	0.049	0.110
1800	10 x16	1507	0.048	0.111
	12.5 x16	1500	0.045	0.110
2200	10 x16	1541	0.045	0.110
	12.5 x20	1910	0.035	0.080
	16 x16	1950	0.041	0.087



# ALUMINUM ELECTROLYTIC CAPACITORS

2700	10 x20	1800	0.038	0.085
	18 x16	2210	0.043	0.090
3300	10 x20	1880	0.036	0.082
	10 x28	2075	0.028	0.063
	12.5 x20	2070	0.031	0.068
	12.5 x35	2700	0.028	0.050
3900	12.5 x30	2650	0.024	0.052
	16 x20	2530	0.027	0.062
4700	12.5 x20	2230	0.025	0.054
	12.5 x30	2765	0.022	0.049
	16 x25	2730	0.024	0.055
5600	12.5 x40	3350	0.017	0.039
	16 x25	2930	0.021	0.048
	18 x20	2860	0.026	0.054
6800	16 x31.5	3450	0.017	0.035
	18 x25	3140	0.019	0.043
8200	16 x35.5	3610	0.015	0.034
	18 x31.5	4170	0.015	0.033
10000	16 x40	4100	0.012	0.028
	18 x35.5	4220	0.014	0.032
12000	18 x40	4300	0.011	0.024

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

Rated voltage 16V (1C)				
Nominal capacitance (uF)	Size φD×L(mm)	Ripple Current (mA)	Impedance (ΩMAX)	
			25°C,100KHz	-10°C,100KHz
10	5 x11	130	1.680	8.400
22	5 x11	136	1.480	7.400
39	5 x11	143	1.050	2.420
47	5 x7	150	0.620	1.250
	5 x11	150	0.620	1.250
56	5 x 11	200	0.570	1.200
68	5 x 11	250	0.480	1.020
100	5 x 11	275	0.450	0.930
	6.3 x7	264	0.460	0.930
	6.3 x11	300	0.390	0.840
120	6.3 x 11	350	0.210	0.480
220	6.3 x 9	360	0.450	0.930
	6.3 x 11	505	0.170	0.385
	8 x 11.5	582	0.150	0.338
330	6.3 x 11	610	0.180	0.920
	8 x8	583	0.155	0.349
	8 x 11.5	660	0.130	0.290
	8 x16	700	0.119	0.270
390	8 x 11.5	700	0.120	0.265
470	6.3 x 14	730	0.170	0.346
	8 x8	630	0.139	0.313
	8 x 11.5	755	0.108	0.240
	8 x20	950	0.078	0.170
	10 x12.5	870	0.080	0.160
560	8 x 9	800	0.300	0.720
	8 x 16	850	0.098	0.210
	10 x 12.5	960	0.075	0.160
680	8 x 11.5	800	0.100	0.190
	8 x 16	850	0.086	0.190
	10 x 12.5	1050	0.070	0.150
	10 x20	1315	0.053	0.115
820	8 x16	950	0.078	0.150
	10 x12.5	1140	0.070	0.350
1000	8 x 14	1100	0.080	0.173
	8 x 20	1182	0.061	0.133
	10 x 16	1315	0.053	0.115
	12.5 x16	1450	0.049	0.110
1200	8 x20	1625	0.043	0.095
	10 x 12.5	1500	0.065	0.136
	12.5 x16	1680	0.042	0.095
1500	8 x 20	1450	0.050	0.100
	10 x20	1660	0.038	0.085



# ALUMINUM ELECTROLYTIC CAPACITORS

	10 x28	1920	0.030	0.070
	12.5 x15	1910	0.035	0.080
	12.5 x20	1910	0.035	0.080
	16 x16	1950	0.041	0.087
1800	10 x 16	1780	0.042	0.095
	10 x 23	1855	0.032	0.073
	12.5 x20	1990	0.033	0.074
2200	8 x25	1850	0.055	0.105
	8 x30	1900	0.050	0.110
	10 x23	1925	0.040	0.092
	10 x30	2075	0.028	0.063
	12.5 x 20	2070	0.038	0.088
	12.5 x30	2545	0.024	0.052
	18 x16	2210	0.043	0.215
2700	12.5 x 25	2440	0.025	0.054
	13 x20	2400	0.035	0.075
	16 x 20	2530	0.027	0.062
3300	10 x 30	2630	0.035	0.079
	12.5 x 25	2440	0.025	0.053
	12.5 x40	3115	0.019	0.043
	16 x 25	2730	0.024	0.055
3900	12.5 x 30	2823	0.021	0.048
	16 x 25	2930	0.020	0.048
	18 x20	2860	0.026	0.054
4700	12.5 x 30	2850	0.022	0.110
	16 x 31.5	3450	0.017	0.035
	18 x 25	3140	0.019	0.043
5600	16 x 35.5	3610	0.015	0.034
	18 x 31.5	4170	0.015	0.033
6800	10 x 50	3300	0.028	0.070
	12.5 x 40	3460	0.022	0.050
	16 x 40	4100	0.012	0.028
	18 x 35.5	4195	0.015	0.033
8200	18 x 35.5	4220	0.014	0.032
10000	18 x 40	4300	0.011	0.024

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

Rated voltage 25V (1E)				
Nominal capacitance (uF)	Size φD×L(mm)	Ripple Current (mA)	Impedance (ΩMAX)	
			25°C,100KHz	-10°C,100KHz
10	4 x7	130	11.60	58.00
	5 x11	148	0.900	1.980
18	5 x11	160	0.840	1.590
22	5 x 7	170	1.400	2.960
	5 x 11	170	0.740	1.590
27	5 x 11	175	0.740	1.590
33	5 x11	185	0.660	3.300
47	5 x 11	200	0.570	1.200
	6.3 x7	217	0.530	1.110
56	5 x 11	217	0.530	1.110
	6.3 x11	260	0.410	0.900
68	5 x 11	235	0.480	1.020
	6.3 x11	275	0.390	0.840
100	5 x 11	310	0.300	0.960
	6.3 x 11	350	0.210	0.480
	8 x7	450	0.210	0.480
	8 x10	465	0.210	0.480
120	6.3 x 11	505	0.190	0.385
150	6.3 x 11	582	0.180	0.338
	8 x11.5	600	0.200	0.314
180	8 x 11.5	620	0.160	0.314
220	6.3 x 11	600	0.200	1.000
	8 x 11.5	660	0.130	0.290
	10 x12.5	780	0.090	0.188
330	8 x 11.5	755	0.108	0.240
	8 x20	950	0.078	0.170
	10 x12.5	870	0.080	0.160
390	8 x 16	995	0.076	0.164
	8 x 20	1000	0.074	0.160
	10 x12.5	960	0.075	0.162
470	8 x11.5	880	0.095	0.190
	8 x16	950	0.078	0.170
	10 x 12.5	1050	0.070	0.145
	10 x20	1251	0.059	0.127
560	8 x16	1150	0.070	0.350
	10 x 16	1272	0.057	0.123
680	8 x18	1100	0.080	0.113
	8 x20	1140	0.067	0.102
	10 x 16	1315	0.053	0.098
	10 x23	1525	0.044	0.098
	12.5 x16	1450	0.049	0.110
820	8 x 18	1320	0.072	0.148
	10 x 16	1358	0.060	0.122

# ALUMINUM ELECTROLYTIC CAPACITORS

820	10 x 23	1650	0.042	0.096
	12.5 x 16	1700	0.045	0.102
1000	8 x 20	1520	0.064	0.120
	10 x 16	1600	0.053	0.085
	10 x 23	1780	0.036	0.083
	10 x 30	1920	0.030	0.070
	12.5 x 16	1680	0.042	0.095
	16 x 16	1950	0.041	0.087
1200	12.5 x 20	1990	0.033	0.074
	18 x 16	2210	0.043	0.090
1500	10 x 20	2000	0.043	0.070
	12.5 x 25	2230	0.026	0.055
	16 x 16	2200	0.025	0.054
1800	12.5 x 20	2020	0.030	0.150
	12.5 x 30	2650	0.024	0.052
	16 x 20	2530	0.027	0.062
2200	12.5 x 25	2497	0.025	0.052
	13 x 20	2450	0.035	0.075
	16 x 25	2730	0.034	0.072
	18 x 20	2860	0.026	0.054
2500	12.5 x 30	2765	0.022	0.049
2700	12.5 x 40	3350	0.017	0.039
	16 x 25	2930	0.020	0.048
3300	12.5 x 25	2800	0.026	0.058
	12.5 x 30	2800	0.021	0.049
	16 x 31.5	3450	0.025	0.053
3900	16 x 25	3190	0.019	0.095
	18 x 31.5	4170	0.015	0.033
4700	16 x 40	4100	0.012	0.028
	18 x 35.5	4220	0.014	0.032
5600	18 x 40	4300	0.011	0.024
6800	12.5 x 35	3115	0.019	0.043

## LZP series

Rated voltage 35V (1V)				
Nominal capacitance (uF)	Size	Ripple Current	Impedance ( $\Omega$ MAX)	
	$\phi D \times L$ (mm)		25°C, 100KHz	-10°C, 100KHz
4.7	4 x 7	90	11.6	58.00
	5 x 11	105	2.000	4.820
10	5 x 7	90	1.500	3.420
	5 x 11	150	0.860	1.480
18	5 x 11	160	0.600	1.280
22	5 x 11	170	0.650	1.280
27	5 x 11	175	0.650	1.280
33	5 x 11	200	0.570	1.200
	6.3 x 7	218	0.620	1.240
47	5 x 11	237	0.480	1.020
	6.3 x 11	275	0.390	0.840

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56	6.3 x 11	350	0.310	0.480
68	5 x 11	480	0.300	0.620
	6.3 x 11	505	0.260	0.585
82	6.3 x 11	543	0.240	0.561
100	6.3 x 8	530	0.800	1.620
	6.3 x 11	582	0.210	0.450
	8 x 7	585	0.180	0.338
	8 x 11.5	621	0.140	0.314
120	8 x 11.5	640	0.135	0.302
	8 x 16	673	0.127	0.286
150	8 x 11.5	660	0.130	0.290
	8 x 16	707	0.119	0.270
180	8 x 16	755	0.108	0.240
220	6.3 x 16	680	0.150	0.360
	8 x 11.5	750	0.120	0.230
	8 x 20	950	0.078	0.170
	10 x 12.5	870	0.080	0.160
270	8 x 20	1050	0.069	0.150
	10 x 16	1140	0.065	0.140
330	8 x 14	980	0.075	0.205
	10 x 12.5	1067	0.080	0.175
	10 x 20	1272	0.057	0.123
390	10 x 16	1272	0.057	0.123
	10 x 20	1315	0.053	0.115
470	8 x 18	1250	0.070	0.200
	8 x 25	1300	0.063	0.130
	10 x 16	1315	0.053	0.115
	12.5 x 16	1450	0.049	0.110
560	10 x 23	1650	0.042	0.096
680	10 x 16	1500	0.048	0.102
	10 x 28	1920	0.030	0.070
	12.5 x 15	1680	0.045	0.098
	12.5 x 25	2070	0.031	0.068
	16 x 16	1950	0.041	0.087
820	10 x 20	1550	0.045	0.090
	12.5 x 16	1700	0.048	0.098
	12.5 x 20	2110	0.031	0.065
1000	10 x 20	1565	0.045	0.090
	10 x 30	1685	0.040	0.090
	12.5 x 18	1880	0.036	0.082
	12.5 x 30	2440	0.025	0.054
	16 x 31.5	1845	0.021	0.045
	18 x 16	2210	0.043	0.090
1200	10 x 25	1900	0.036	0.086
	12.5 x 20	1950	0.034	0.080
	12.5 x 30	2650	0.024	0.052
	16 x 16	2480	0.031	0.068
1500	12.5 x 20	2650	0.040	0.092
	12.5 x 40	3290	0.022	0.048
	16 x 25	2730	0.024	0.055
1800	12.5 x 40	3350	0.017	0.039
	16 x 25	2930	0.020	0.048
	18 x 20	2860	0.026	0.054



# ALUMINUM ELECTROLYTIC CAPACITORS

2200	16 x25	3130	0.024	0.050
	18 x25	3140	0.019	0.043
	20 x20	3200	0.023	0.050
2700	16 x35.5	3610	0.015	0.034
	18 x31.5	4170	0.015	0.033
3300	16 x30	3630	0.027	0.038
	16 x40	4100	0.015	0.033
	18 x35.5	4220	0.014	0.032
3900	18 x40	4300	0.011	0.024
4700	18 x40	4200	0.023	0.045
6800	18 x40	4400	0.022	0.045

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

Rated voltage 50V (1H)				
Nominal capacitance (μF)	Size	Ripple Current (mA)	Impedance (ΩMAX)	
	φD xL(mm)		25°C,100KHz	-10°C,100KHz
0.22	5 x11	49	9.400	18.72
0.47	5 x11	60	5.280	12.35
0.68	5 x11	70	5.180	12.35
1	5 x7	60	5.750	11.65
	5 x11	71	3.780	8.150
2.2	5 x11	85	2.280	5.52
3.3	5 x11	105	1.980	4.820
4.7	5 x5	80	1.720	8.600
	5 x11	130	1.680	4.120
6.8	5 x11	136	1.480	3.590
	6.3 x8	110	1.650	3.185
8.2	5 x11	140	1.400	3.050
10	5 x7	139	1.380	3.020
	5 x11	142	1.280	3.050
	6.3 x7	140	1.330	3.185
	6.3 x11	193	0.885	2.065
18	5 x11	170	0.720	1.520
22	5 x11	190	0.680	1.520
	6.3 x7	192	3.500	17.50
27	5 x11	218	0.590	1.300
33	5 x11	231	0.540	1.190
	6.3 x11	245	0.490	1.080
47	5 x11	250	0.480	1.000
	6.3 x11	272	0.395	0.855
56	6.3 x11	300	0.300	0.630
68	6.3 x11	430	0.240	0.500
100	6.3 x12	500	0.200	0.420
	8 x11.5	560	0.170	0.390
	10 x11.5	600	0.145	0.325
120	8 x11.5	650	0.150	0.335
	8 x16	730	0.120	0.280
150	10 x12.5	760	0.120	0.260
180	8 x20	910	0.090	0.190
	10 x16	1000	0.095	0.215
220	8 x16	950	0.120	0.227
	10 x10	980	0.087	0.190
	10 x16	1050	0.084	0.190
270	10 x20	1220	0.058	0.130
	12.5 x16	1260	0.061	0.140
330	8 x25	1000	0.075	0.160
	10 x16	1190	0.071	0.155
	10 x20	1330	0.057	0.135
390	12.5 x20	1460	0.053	0.120
470	10 x20	1440	0.055	0.275
	12.5 x16	1550	0.050	0.115
	12.5 x25	1810	0.040	0.085
	16 x16	1690	0.055	0.130



# ALUMINUM ELECTROLYTIC CAPACITORS

560	12.5 x25	1960	0.034	0.071
	18 x16	1930	0.054	0.120
680	10 x20	1560	0.052	0.106
	12.5 x20	2200	0.036	0.072
	12.5 x30	2310	0.030	0.066
820	12.5 x25	2400	0.034	0.071
	16 x20	2210	0.034	0.081
1000	10 x30	2150	0.032	0.076
	12.5 x25	2300	0.040	0.086
	12.5 x30	2300	0.025	0.125
	13 x20	2350	0.045	0.092
	16 x16	2300	0.036	0.082
	16 x20	2380	0.030	0.069
	18 x20	2490	0.036	0.086
1200	16 x31.5	3010	0.021	0.048
	18 x25	2740	0.026	0.059
1500	16 x35.5	3150	0.019	0.047
	18 x31.5	3160	0.020	0.048
1800	16 X35.5	3430	0.018	0.042
	16 x40	3710	0.016	0.036
	18 x31.5	3640	0.021	0.048
2200	16 x31.5	3710	0.021	0.048
	18 x35.5	3680	0.017	0.040
2700	18 x40	3800	0.014	0.032
3300	18 x45	4300	0.011	0.025
4700	18 x45	4550	0.023	0.052

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

Rated voltage 63V (1J)				
Nominal capacitance (uF)	Size	Ripple Current (mA)	Impedance ( $\Omega$ MAX)	
	$\phi$ DxL(mm)		25°C,100KHz	-10°C,100KHz
2.2	5 x11	30	4.120	8.150
4.7	5 x11	30	4.00	8.020
10	5 x11	49	3.650	7.880
15	5 x11	60	2.200	4.830
22	6.3 x11	85	2.100	4.566
	6.3 x11	90	1.700	3.795
33	6.3 x11	120	1.200	2.760
47	6.3 x11	175	0.915	2.135
	8 x11.5	202	0.773	1.823
56	8 x11.5	230	0.630	1.510
82	8 x16	300	0.450	1.030
	10 x12.5	290	0.430	0.900
100	8 x16	330	0.390	0.910
	10 x12.5	325	0.370	0.805
120	8 x20	360	0.330	0.790
	10 x16	360	0.310	0.710
150	10 x16	385	0.310	0.710
180	8 x16	385	0.330	0.800
	10 x12.5	430	0.260	0.550
	10 x20	470	0.200	0.500
	12.5 x16	470	0.230	0.570
220	8 x20	450	0.280	0.620
	10 x16	470	0.220	0.500
	10 x20	500	0.200	0.480
270	10 x28	670	0.140	0.360
	12.5 x20	690	0.160	0.380
	16 x16	800	0.140	0.350
330	10 x18	700	0.220	0.350
	12.5 x20	740	0.140	0.330
390	12.5 x25	820	0.120	0.270
	18 x16	920	0.120	0.270
470	10 x30	880	0.180	0.340
	12.5 x25	850	0.110	0.260
	16 x20	1040	0.091	0.190
560	12.5 x25	1000	0.100	0.210
	12.5 x35	1050	0.083	0.170
	16 x25	1250	0.073	0.160
680	10 x35	1000	0.096	0.220
	12.5 x25	1100	0.092	0.200
	12.5 x40	1180	0.071	0.160
	18 x20	1240	0.080	0.170

# ALUMINUM ELECTROLYTIC CAPACITORS

820	12.5 x30	1112	0.078	0.180
	16 x31.5	1570	0.054	0.110
	18 x25	1490	0.057	0.130
1000	12.5 x35	1420	0.065	0.145
	16 x35.5	1790	0.045	0.099
	18 x20	1500	0.056	0.100
	18 x31.5	1630	0.047	0.100
1200	12.5 x35.5	1550	0.060	0.130
	16 x40	2020	0.040	0.088
	18 x35.5	1790	0.038	0.080
1500	13 x35	1780	0.048	0.092
	18 x40	2340	0.036	0.078
1800	18 x45	2500	0.030	0.063
2200	18 x35.5	3700	0.030	0.063

## LZP series

Rated voltage 80V (1K)				
Nominal capacitance (uF)	Size	Ripple Current (mA)	Impedance ( $\Omega$ MAX)	
	$\varnothing$ DxL(mm)		25°C, 100KHz	-10°C, 100KHz
220	10 x20	530	0.180	0.480
330	12.5 x20	900	0.150	0.450
	12.5 x30	950	0.140	0.430
1000	16 x30	2000	0.085	0.182

# ALUMINUM ELECTROLYTIC CAPACITORS

## LZP series

Rated voltage 100V (2A)				
Nominal capacitance (uF)	Size	Ripple Current (mA)	Impedance (ΩMAX)	
	φD×L(mm)		25°C,100KHz	-10°C,100KHz
1	5 x11	20	7.3	14.8
	6.3 x11	25	7.0	14.0
3.3	5 x11	35	7.2	13.5
4.7	5 x11	49	6.700	13.50
6.8	5 x11	60	2.200	4.830
10	5 x11	80	2.000	4.820
	6.3 x11	90	1.700	3.795
15	6.3 x11	120	1.200	2.760
22	6.3 x11	150	1.200	6.000
	8 x11.5	175	0.920	2.130
27	8 x11.5	230	0.630	1.500
33	8 x11.5	230	0.630	1.500
	8 x16	275	0.535	1.260
	10 x12.5	300	0.580	1.450
39	8 x16	320	0.440	1.020
47	8 x11.5	300	0.500	1.085
	8 x20	340	0.390	0.910
	10 x12.5	290	0.430	0.900
	10 x20	350	0.400	0.930
56	8 x20	360	0.330	0.790
68	10 x16	360	0.310	0.710
82	10 x20	470	0.200	0.500
	12.5 x16	470	0.230	0.570
100	8 x23	450	0.280	0.600
	10 x16	470	0.300	0.460
	12.5 x20	580	0.195	0.475
120	10 x28	660	0.140	0.360
	12.5 x20	690	0.160	0.380
150	12.5 x25	740	0.140	0.325
	16 x16	800	0.140	0.350
	18 x16	865	0.130	0.310
180	12.5 x25	790	0.120	0.270
	18 x16	930	0.120	0.270
220	10 x23	680	0.200	0.360
	12.5 x20	850	0.160	0.380
	12.5 x30	910	0.100	0.240
	16 x20	1040	0.091	0.190
270	12.5 x35	1050	0.083	0.170
	16 x25	1250	0.073	0.160

# ALUMINUM ELECTROLYTIC CAPACITORS

330	12.5 x40	1200	0.070	0.160
	18 x20	1240	0.080	0.170
360	12.5 x35	1200	0.065	0.132
390	16 x31.5	1570	0.054	0.110
	18 x25	1500	0.056	0.120
470	12.5 x40	1592	0.055	0.130
	16 x25	1500	0.076	0.160
	16 x35.5	1800	0.045	0.099
	18 x25	1565	0.052	0.110
560	16 x40	2020	0.040	0.088
	18 x31.5	1710	0.044	0.092
680	18 x35.5	1790	0.040	0.084
	16 x 30	1830	0.046	0.100
	16 x35.5	1910	0.043	0.215
820	18 x40	2340	0.036	0.070
1000	18 x35.5	1790	0.040	0.084
	18 x40	2400	0.035	0.068

## LZP series

Rated voltage 120V (1B)				
Nominal capacitance (uF)	Size	Ripple Current (mA)	Impedance ( $\Omega$ MAX)	
	$\varphi$ DxL(mm)		25°C, 100KHz	-10°C, 100KHz
68	10 x20	500	0.280	0.680
470	16 x30	1800	0.052	0.110