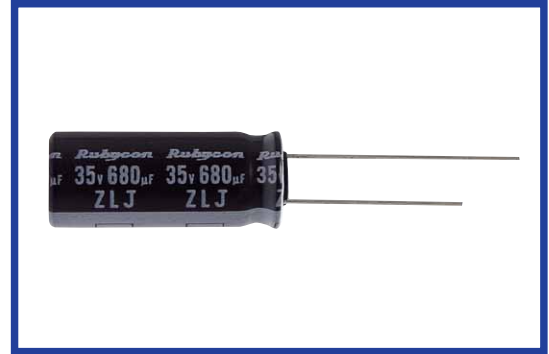


**ZLJ SERIES**
**105°C Long Life, Low Impedance, High Ripple Current**
**◆FEATURES**

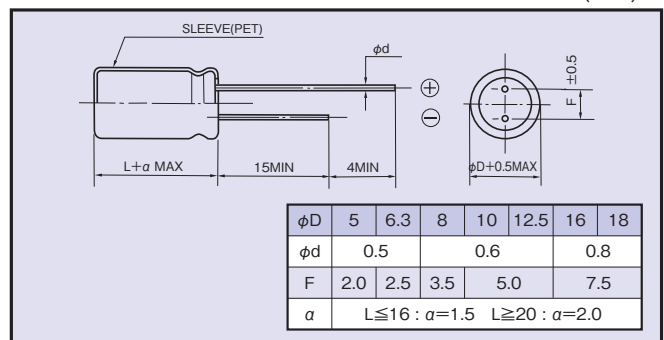
- Load Life : 105°C 6000~10000 hours.
- RoHS compliance.


**◆SPECIFICATIONS**

Items	Characteristics																															
Category Temperature Range	-40~+105°C																															
Rated Voltage Range	6.3~100Vdc																															
Capacitance Tolerance	±20% (20°C, 120Hz)																															
Leakage Current(MAX)	I=0.01CV or 3µA whichever is greater. (After 2 minutes) I=Leakage Current(µA)      C=Capacitance(µF)      V=Rated Voltage(Vdc)																															
(tanδ) Dissipation Factor(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</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> </tr> </thead> <tbody> <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>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.08</td> </tr> </tbody> </table> <p>(20°C, 120Hz)</p> <p>When capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.</p>	Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	80	100	tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08											
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tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08																							
Endurance	<p>After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <thead> <tr> <th rowspan="2">Capacitance Change</th> <th rowspan="2">Within ±25% of the initial value. (6.3Vdc, 10Vdc:±30%)</th> <th colspan="3">Life Time(hrs)</th> </tr> <tr> <th>6.3Vdc</th> <th>10~50Vdc</th> <th>63~100Vdc</th> </tr> </thead> <tbody> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> <td>6000</td> <td>7000</td> <td>6000</td> </tr> <tr> <td rowspan="2">Leakage Current</td> <td rowspan="2">Not more than the specified value.</td> <td>8000</td> <td>9000</td> <td>8000</td> </tr> <tr> <td>9000</td> <td>9000</td> <td>9000</td> </tr> <tr> <td></td> <td></td> <td>9000</td> <td>10000</td> <td>9000</td> </tr> <tr> <td></td> <td></td> <td colspan="3">10000</td> </tr> </tbody> </table>	Capacitance Change	Within ±25% of the initial value. (6.3Vdc, 10Vdc:±30%)	Life Time(hrs)			6.3Vdc	10~50Vdc	63~100Vdc	Dissipation Factor	Not more than 200% of the specified value.	6000	7000	6000	Leakage Current	Not more than the specified value.	8000	9000	8000	9000	9000	9000			9000	10000	9000			10000		
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</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> </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> <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> <td>3</td> </tr> </tbody> </table> <p>(120Hz)</p>	Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	80	100	Z(-25°C)/Z(20°C)	2	2	2	2	2	2	2	2	2	Z(-40°C)/Z(20°C)	3	3	3	3	3	3	3	3	3	
Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	80	100																							
Z(-25°C)/Z(20°C)	2	2	2	2	2	2	2	2	2																							
Z(-40°C)/Z(20°C)	3	3	3	3	3	3	3	3	3																							

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency (Hz)		120	1k	10k	100k≤
Coefficient	8.2~33µF	0.42	0.70	0.90	1.00
	47~270µF	0.50	0.73	0.92	1.00
	330~680µF	0.55	0.77	0.94	1.00
	820~1800µF	0.60	0.80	0.96	1.00
	2200~8200µF	0.70	0.85	0.98	1.00

**◆DIMENSIONS**

**◆OPTION**

PET Sleeve	Code
	Blank

**◆PART NUMBER**

□□□	ZLJ	□□□□□	M	□□□	□□	D×L
Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

**◆ STANDARD SIZE**

Rated Voltage (Vdc)	Capacitance (μF)	Size φD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)		Rated Voltage (Vdc)	Capacitance (μF)	Size φD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
				20°C, 100kHz	-10°C, 100kHz					20°C, 100kHz	-10°C, 100kHz
6.3	220	5×11	345	0.40	1.2	25	68	5×11	450	0.40	1.2
	470	6.3×11	540	0.17	0.51		150	6.3×11	700	0.17	0.51
	820	8×11.5	945	0.075	0.23		330	8×11.5	1200	0.075	0.23
	1000	8×16	1250	0.059	0.18		390	8×16	1600	0.059	0.18
	1200	10×12.5	1330	0.053	0.16		470	10×12.5	1700	0.053	0.16
	1500	8×20	1500	0.041	0.13		560	8×20	1960	0.041	0.13
	1800	10×16	1760	0.038	0.12		680	10×16	2000	0.038	0.12
	2700	10×20	1960	0.028	0.084		1000	10×20	2500	0.028	0.084
	3300	10×25	2250	0.024	0.072		1200	10×25	2900	0.024	0.072
	3900	12.5×20	2480	0.025	0.075		1500	12.5×20	2600	0.025	0.075
	4700	12.5×25	2900	0.019	0.057		1800	12.5×25	3200	0.019	0.057
	5600	12.5×30	3450	0.018	0.054		2200	12.5×30	3660	0.018	0.054
	6800	16×20	3250	0.021	0.063		2200	16×20	3330	0.021	0.063
	6800	12.5×35	3570	0.016	0.048		2700	12.5×35	4120	0.016	0.048
8200	16×25	3630	0.017	0.051	3300	16×25	3810	0.017	0.051		
10	150	5×11	450	0.40	1.2	35	47	5×11	450	0.40	1.2
	330	6.3×11	700	0.17	0.51		100	6.3×11	700	0.17	0.51
	560	8×11.5	1200	0.075	0.23		180	8×11.5	1200	0.075	0.23
	680	8×16	1600	0.059	0.18		220	8×16	1600	0.059	0.18
	820	10×12.5	1700	0.053	0.16		270	8×16	1600	0.059	0.18
	1000	8×20	1960	0.041	0.13		270	10×12.5	1700	0.053	0.16
	1200	10×16	2000	0.038	0.12		330	8×20	1960	0.041	0.13
	1800	10×20	2500	0.028	0.084		390	10×16	2000	0.038	0.12
	2200	10×25	2900	0.024	0.072		560	10×20	2500	0.028	0.084
	2700	12.5×20	2600	0.025	0.075		680	10×25	2900	0.024	0.072
	3300	12.5×25	3200	0.019	0.057		820	12.5×20	2600	0.025	0.075
	4700	12.5×30	3660	0.018	0.054		1200	12.5×25	3200	0.019	0.057
	4700	16×20	3330	0.021	0.063		1500	12.5×30	3660	0.018	0.054
	5600	12.5×35	4120	0.016	0.048		1500	16×20	3330	0.021	0.063
5600	16×25	3810	0.017	0.051	1800	12.5×35	4120	0.016	0.048		
16	120	5×11	450	0.40	1.2	50	1800	16×25	3810	0.017	0.051
	270	6.3×11	700	0.17	0.51		27	5×11	310	0.48	1.5
	470	8×11.5	1200	0.075	0.23		56	6.3×11	500	0.22	0.66
	560	8×16	1600	0.059	0.18		100	8×11.5	950	0.12	0.36
	680	10×12.5	1700	0.053	0.16		120	8×16	1230	0.082	0.25
	820	8×20	1960	0.041	0.13		150	10×12.5	1280	0.073	0.22
	1000	10×16	2000	0.038	0.12		180	8×20	1580	0.058	0.18
	1500	10×20	2500	0.028	0.084		220	10×16	1650	0.053	0.16
	1800	10×25	2900	0.024	0.072		180	8×20	1580	0.058	0.18
	2200	12.5×20	2600	0.025	0.075		220	10×16	1650	0.053	0.16
	2700	12.5×25	3200	0.019	0.057		330	10×20	2060	0.038	0.12
	3300	12.5×30	3660	0.018	0.054		390	10×25	2420	0.032	0.10
	3300	16×20	3330	0.021	0.063		470	12.5×20	2300	0.032	0.10
	3900	12.5×35	4120	0.016	0.048		680	12.5×25	2800	0.025	0.080
4700	16×25	3810	0.017	0.051	820	12.5×30	3370	0.023	0.074		
					820	16×20	3070	0.026	0.084		
					1000	12.5×35	3810	0.021	0.067		
					1000	16×25	3510	0.022	0.070		

**◆ STANDARD SIZE**

Rated Voltage (Vdc)	Capacitance (μF)	Size φD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)		Rated Voltage (Vdc)	Capacitance (μF)	Size φD×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
				20°C, 100kHz	-10°C, 100kHz					20°C, 100kHz	-10°C, 100kHz
63	18	5×11	240	0.71	3.2	100	8.2	5×11	220	1.2	5.4
	47	6.3×11	420	0.28	1.3		18	6.3×11	370	0.46	2.1
	82	8×11.5	720	0.18	0.79		33	8×11.5	620	0.29	1.3
	100	8×16	990	0.13	0.58		47	8×16	780	0.20	0.90
	120	10×12.5	990	0.11	0.44		56	10×12.5	780	0.17	0.66
	150	8×20	1200	0.096	0.43		68	8×20	1040	0.16	0.66
	180	10×16	1200	0.076	0.31		82	10×16	1040	0.11	0.47
	270	10×20	1570	0.056	0.23		100	10×20	1430	0.084	0.34
	270	12.5×16	1570	0.072	0.27		100	12.5×16	1430	0.11	0.34
	330	10×25	1990	0.046	0.19		120	10×25	1620	0.069	0.28
	390	12.5×20	1990	0.041	0.13		150	12.5×20	1750	0.062	0.18
	470	12.5×25	2460	0.031	0.093		220	12.5×25	2210	0.047	0.14
	560	12.5×30	2760	0.028	0.084		270	12.5×30	2400	0.042	0.13
	560	16×20	2380	0.032	0.096		270	16×20	1950	0.048	0.15
	680	12.5×35	3040	0.024	0.072		330	12.5×35	2600	0.036	0.11
820	16×25	2890	0.025	0.075	390	12.5×40	2860	0.032	0.095		
80	12	5×11	220	1.2	5.4	390	16×25	2430	0.038	0.12	
	27	6.3×11	370	0.46	2.1	390	18×20	2270	0.045	0.14	
	47	8×11.5	620	0.29	1.3	470	16×31.5	2640	0.032	0.095	
	56	8×16	780	0.20	0.90	470	18×25	2500	0.036	0.11	
	68	10×12.5	780	0.17	0.66	560	16×35.5	2860	0.029	0.086	
	82	8×20	1040	0.16	0.66	560	18×31.5	2860	0.030	0.090	
	100	10×16	1040	0.11	0.47	680	16×40	3510	0.027	0.081	
	150	10×20	1430	0.084	0.34	680	18×35.5	3510	0.027	0.081	
	150	12.5×16	1430	0.11	0.34	820	18×40	3860	0.026	0.076	
	180	10×25	1620	0.069	0.28						
	220	12.5×20	1750	0.062	0.18						
	270	12.5×25	2210	0.047	0.14						
	330	12.5×30	2400	0.042	0.13						
	330	16×20	1950	0.048	0.15						
	390	12.5×35	2600	0.036	0.11						
	470	12.5×40	2860	0.032	0.095						
	470	16×25	2430	0.038	0.12						
	470	18×20	2270	0.045	0.14						
	560	16×31.5	2640	0.032	0.095						
	680	16×35.5	2860	0.029	0.086						
	680	18×25	2500	0.036	0.11						
820	16×40	3510	0.027	0.081							
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