

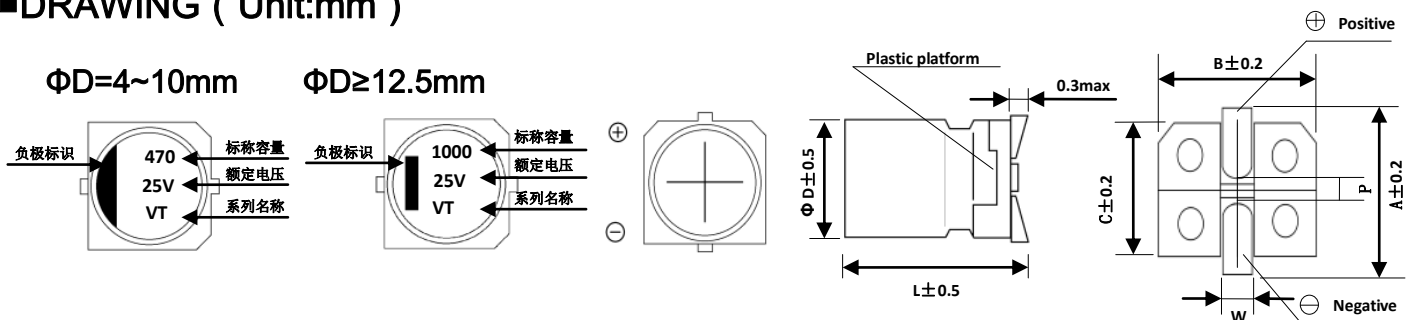
LZ series LOW IMPEDANCE

- Low impedance with temperature range -55~105°C
- Load life of 2000 hours
- Comply with the ROHS directive

SPECIFICATIONS

Item	Characteristics																																								
Operating Temperature Range	-55~105°C																																								
Rated Voltage Range	6.3~50V																																								
Capacitance Range	1~4700uF																																								
Capacitance Tolerance	±20% at 120Hz,20°C																																								
Leakage Current (MAX)	(Φ4~Φ10) ≤0.01CV or 3uA, Whichever is greater(after 2 minutes application of rated voltage) (Φ12.5~Φ16) ≤0.03CV or 4uA,Whichever is greater (after 1 minutes application of rated voltage)																																								
Dissipation Factor (tan δ)	<p style="text-align: right;">Measurement frequency : 120Hz 20°C</p> <table border="1"> <thead> <tr> <th colspan="2">Rated voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Tan δ</td> <td>Φ4~Φ10</td> <td>0.22</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> <tr> <td>Φ12.5~Φ16</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </tbody> </table>	Rated voltage(V)		6.3	10	16	25	35	50	Tan δ	Φ4~Φ10	0.22	0.20	0.18	0.16	0.14	0.12	Φ12.5~Φ16	0.26	0.22	0.18	0.16	0.14	0.12																	
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Low Temperature Stability Impedance Ratio	<p style="text-align: right;">Measurement frequency:120Hz</p> <table border="1"> <thead> <tr> <th colspan="2">Rated voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance Ratio</td> <td rowspan="2">Φ4~Φ10</td> <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> </tr> <tr> <td>Z(-55°C) / Z (+20°C)</td> <td>5</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td rowspan="2">ZT/Z20(max)</td> <td rowspan="2">Φ12.5~Φ16</td> <td>Z(-25°C) / Z (+20°C)</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-55°C) / Z (+20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated voltage(V)		6.3	10	16	25	35	50	Impedance Ratio	Φ4~Φ10	Z(-25°C) / Z (+20°C)	2	2	2	2	2	2	Z(-55°C) / Z (+20°C)	5	4	4	3	3	3	ZT/Z20(max)	Φ12.5~Φ16	Z(-25°C) / Z (+20°C)	3	3	2	2	2	2	Z(-55°C) / Z (+20°C)	10	8	6	4	3	3
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Load Life	<p>After 2000 hours of rated operating voltage at 105 °C, the characteristics of the capacitor meet the requirements of the following table</p> <table border="1"> <tbody> <tr> <td>Leakage Current</td> <td>≤The initial specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±30% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤200% of the initial specified value</td> </tr> </tbody> </table>	Leakage Current	≤The initial specified value	Capacitance Change	Within ±30% of the initial value	Dissipation Factor	≤200% of the initial specified value																																		
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Shelf Life	After 1000 hours of no-load storage in a 105 °C environment, the characteristics of the capacitor meet the specified values listed in the high-temperature load characteristics.																																								
Resistance to Soldering Heat	<p>After reflow soldering and cooling to room temperature, the characteristics of the capacitor meet the requirements of the following table.</p> <table border="1"> <tbody> <tr> <td>Leakage Current</td> <td>≤The initial specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±10% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤The initial specified value</td> </tr> </tbody> </table>	Leakage Current	≤The initial specified value	Capacitance Change	Within ±10% of the initial value	Dissipation Factor	≤The initial specified value																																		
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Marking	Black print on the case top.																																								

DRAWING (Unit:mm)



LZ series LOW IMPEDANCE

■DIMENSIONS(mm)

D×L	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×10.5	10×10.5	10×13.5	12.5×13.5	12.5×16	16×16.5
A	5.1	6.1	7.3	7.3	9.2	11.2	11.2	13.8	13.8	18.0
B	4.3	5.3	6.6	6.6	8.4	10.4	10.4	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.4	10.4	10.4	13.0	13.0	17.0
P±0.2	1.0	1.3	2.2	2.2	3.1	4.4	4.4	4.4	4.4	6.7
L	5.4	5.4	5.4	7.7	10.5	10.5	13.5	13.5	16.0	16.5

■DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

Size $\Phi D \times L$ (mm)Ripple Current(mA 105°C,100kHz)r.m.s

WV	6.3			10			16		
	SIZE	Impedance (QMAX)	Ripple current	SIZE	Impedance (QMAX)	Ripple current	SIZE	Impedance (QMAX)	Ripple current
10							4×5.4	3.0	60
15							5×5.4	1.8	95
							4×5.4	3.0	60
22	4×5.4	3.0	60	5×5.4	1.8	95	5×5.4	1.8	95
				4×5.4	3.0	60	4×5.4	3.0	60
33	5×5.4	1.8	95	5×5.4	1.8	95	6.3×5.4	1.0	140
	4×5.4	3.0	60	4×5.4	3.0	60	5×5.4	1.8	95
47	5×5.4	1.8	95	6.3×5.4	1.0	140	6.3×5.4	1.0	140
	4×5.4	3.0	60	5×5.4	1.8	95	5×5.4	1.8	95
68	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×7.7	0.6	230
	5×5.4	1.8	95				6.3×5.4	1.0	140
100	6.3×5.4	1.0	140	6.3×7.7	0.6	230	6.3×7.7	0.6	230
	5×5.4	1.8	95	6.3×6.4	1.0	140	6.3×5.4	1.0	140
150	6.3×7.7	0.6	230	6.3×7.7	0.6	230	6.3×7.7	0.6	230
	6.3×5.4	1.0	140	6.3×5.4	1.0	140			
220	6.3×7.7	0.6	230	6.3×7.7	0.6	230	8×10.5	0.3	450
	6.3×5.4	1.0	140				6.3×7.7	0.6	230
330	6.3×7.7	0.6	230	8×10.5	0.3	450	10×10.5	0.15	670
							8×10.5	0.30	450
470	8×10.5	0.30	450	8×10.5	0.3	450	10×10.5	0.15	670
	6.3×7.7	0.60	230				8×10.5	0.30	450
680	8×10.5	0.30	450	10×10.5	0.15	670	10×10.5	0.15	670
1000	10×10.5	0.15	670	10×10.5	0.15	670	10×10.5	0.15	670
	8×10.5	0.30	450						
1500	10×13.5	0.13	750	12.5×13.5	0.11	820	12.5×13.5	0.11	820
	10×10.5	0.15	670	10×13.5	0.13	750			
2200	12.5×13.5	0.11	820	12.5×16	0.09	950	16×16.5	0.08	1260
	10×13.5	0.13	750				12.5×16	0.09	950
3300	12.5×16	0.09	950	16×16.5	0.08	1260	16×16.5	0.08	1260
	12.5×13.5	0.11	820						
4700	16×16.5	0.08	1260	16×16.5	0.08	1260			

WV	25			35			50		
	SIZE	Impedance (QMAX)	Ripple current	SIZE	Impedance (QMAX)	Ripple current	SIZE	Impedance (QMAX)	Ripple current
1				4×5.4	3.0	60	4×5.4	5.0	30
1.5				4×5.4	3.0	60	4×5.4	5.0	30
2.2				4×5.4	3.0	60	4×5.4	5.0	30
3.3				4×5.4	3.0	60	4×5.4	5.0	30
4.7	4×5.4	3.0	60	4×5.4	3.0	60	5×5.4	3.0	50
6.8	4×5.4	3.0	60	5×5.4	1.8	95	6.3×5.4	2.0	70
10	5×5.4	1.8	95	5×5.4	1.8	95	6.3×5.4	2.0	70
	4×5.4	3.0	60	4×5.4	3.0	60			
15	6.3×5.4	1.8	95	5×5.4	1.8	95	6.3×5.4	2.0	70
22	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×7.7	1.0	120
	5×5.4	1.8	95	5×5.4	1.8	95	6.3×5.4	2.0	70
33	6.3×5.4	1.0	140	6.3×7.7	0.6	230	6.3×7.7	1.0	120
	5×5.4	1.8	95	6.3×5.4	1.0	140			
47	6.3×7.7	0.6	230	6.3×7.7	0.6	230	6.3×7.7	1.0	120
	6.3×5.4	1.0	140	6.3×5.4	1.0	140			
68	6.3×7.7	0.6	230	6.3×7.7	0.6	230	8×10.5	0.6	300
100	6.3×7.7	0.6	230	8×10.5	0.3	450	8×10.5	0.6	300
				6.3×7.7	0.6	230			
150	8×10.5	0.3	450	8×10.5	0.3	450	10×10.5	0.3	500
	6.3×7.7	0.6	230						



series **LOW IMPEDANCE**

■ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

Size $\Phi D \times L$ (mm) Ripple Current(mA 105°C,100kHz)r.m.s

WV CAP(μ F)	25			35			50		
	SIZE	Impedance (Ω MAX)	Ripple current	SIZE	Impedance (Ω MAX)	Ripple current	SIZE	Impedance (Ω MAX)	Ripple current
220	8×10.5	0.30	450	10×10.5 8×10.5	0.15 0.30	670 450	10×10.5		
330	10×10.5 8×10.5	0.15 0.30	670 450	10×10.5	0.15	670	16×16.5 12.5×13.5 10×13.5	0.12 0.20 0.25	1060 650 580
470	10×10.5	0.15	670	10×13.5 10×10.5	0.13 0.15	750 670	16×16.5 12.5×16	0.12 0.15	1060 700
680	10×13.5	0.13	750	12.5×13.5 10×13.5	0.11 0.13	820 750	16×16.5	0.12	1060
1000	16×16.5 12.5×13.5	0.08 0.11	1260 820	16×16.5 12.5×16	0.08 0.09	1260 950			
1500	12.5×16	0.09	950	16×16.5	0.08	1260			
2200	16×16.5	0.08	1260						

■ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency		50Hz	120Hz	300Hz	1kHz	10kHz~
Coefficient	$\Phi 4 \sim \Phi 10$	1~68 μ F	0.35	0.50	0.64	0.83
		100~2200 μ F	0.40	0.55	0.70	0.85
	$\Phi 12.5 \sim \Phi 16$	1~680 μ F	0.45	0.65	0.80	0.90
		1000~4700 μ F	0.65	0.85	0.95	1.00

● Aluminum electrolytic capacitors due to self-heating when the ripple current is superimposed, aging due to temperature rise, the life is reduced by half every 5°C; if you want to maintain a long life, please reduce the ripple current during use.