

# VZ1 Series Aluminum Electrolytic Capacitor

## Features

- ◆ Reflow soldering is available
- ◆ Available for high density surface mounting
- ◆ High stability and reliability
- ◆ Extreme lower impedance
- ◆ Lifetime: +105°C, 1000 Hr.

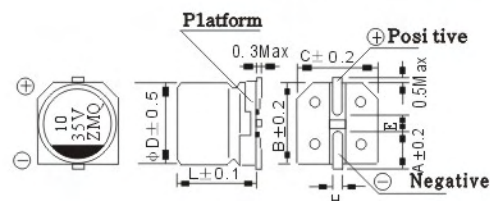


## Specifications

Operating Temperature Range	-55~+105°C																																	
Rated Voltage Range	6.3~50V DC																																	
Nominal Capacitance Range	1.0~1500 μF																																	
Capacitance Tolerance	±20% (120Hz, 20°C)																																	
Leakage Current	$I \leq 0.01C_r U_r$ (μA) or 3 μA Whichever is greater (after 2 minutes)																																	
Dissipation Factor(120Hz/20°C)	<table border="1"> <tr> <td><math>U_r</math>(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Tg δ</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> </tr> </table>						$U_r$ (V)	6.3	10	16	25	35	50	Tg δ	0.22	0.19	0.16	0.14	0.12	0.10														
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Temperature Characteristics Impedance Ratio (120Hz)	<table border="1"> <tr> <td><math>U_r</math>(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <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> </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> </tr> <tr> <td>Z-55°C/Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>						$U_r$ (V)	6.3	10	16	25	35	50	Z-25°C/Z+20°C	2	2	2	2	2	2	Z-40°C/Z+20°C	3	3	3	3	3	3	Z-55°C/Z+20°C	4	4	4	3	3	3
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Load Life	After applying rated voltage for 1000 hours at +105°C and then resumed 16 hours. The capacitor shall meet the following limits.	<table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±20% of Initial measured value (≤16V: Within ±25% of the initial value)</td> </tr> <tr> <td>Leakage</td> <td>≤ Initial specified value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤200% of Initial specified value</td> </tr> </table>					Capacitance Change	≤ ±20% of Initial measured value (≤16V: Within ±25% of the initial value)	Leakage	≤ Initial specified value	Dissipation Factor	≤200% of Initial specified value																						
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Shelf Life	After storage for 1000 hours at +105°C and then resumed 16 hours, the capacitor shall meet the following limits.	<table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±20% of Initial measured value</td> </tr> <tr> <td>Leakage</td> <td>≤200% of Initial specified value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤120% of Initial specified value</td> </tr> </table>					Capacitance Change	≤ ±20% of Initial measured value	Leakage	≤200% of Initial specified value	Dissipation Factor	≤120% of Initial specified value																						
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Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, then meet the following requirement.	<table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±10% of Initial measured value</td> </tr> <tr> <td>Leakage</td> <td>≤ Initial specified value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤ Initial specified value</td> </tr> </table>					Capacitance Change	≤ ±10% of Initial measured value	Leakage	≤ Initial specified value	Dissipation Factor	≤ Initial specified value																						
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## Dimensions & Marking

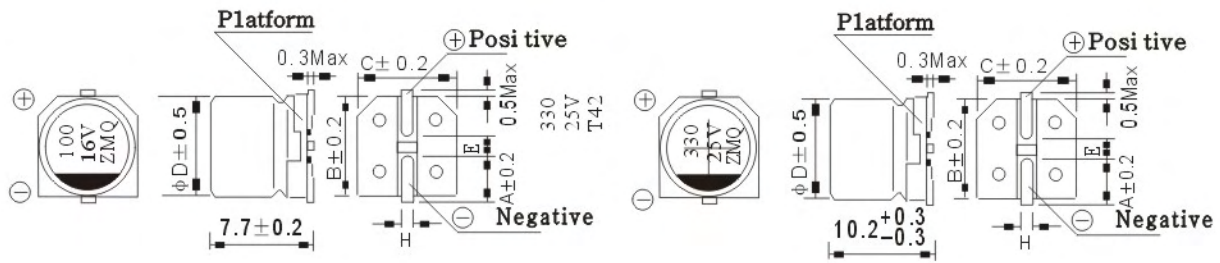
(φ4~φ6.3)



# Aluminum Electrolytic Capacitor VZ1 Series

( $\phi 6.3 \times 7.7$ )

( $\phi 8 \sim \phi 10 \times 10.2$ )



Size	mm					
	4×5.4 M	5×5.4 N	6.3×5.4 P	6.3×7.7 Q	8×10.2 R	10×10.2 S
A	1.8	2.1	2.4	2.5	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
D	4.0	5.0	6.3	6.3	8.0	10
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.4	5.4	5.4	7.7	10.2	10.2
H	0.5~0.8			0.8~1.1		

## Standard sizes & maximum permissible ripple current & impedance

VV	6.3(0J)			10(1A)			16(1C)			25(1E)			35(1V)			50(1H)		
	D×L mm	Impedance Ω	Ripple Current mA	D×L mm	Impedance Ω	Ripple Current mA	D×L mm	Impedance Ω	Ripple Current mA	D×L mm	Impedance Ω	Ripple Current mA	D×L mm	Impedance Ω	Ripple Current mA	D×L mm	Impedance Ω	Ripple Current mA
1.0																M	2.9	60
2.2																M	2.9	60
3.3																M	2.9	60
4.7										M	1.8	80	M	1.8	80	N	1.52	85
10								1.8	80	M	1.8	80	N	0.76	150	P	0.88	165
22	M	1.8	80	M	1.8	80	N	0.76	150	P	0.44	230	P	0.44	230	Q	0.68	185
33	N	0.76	150	N	0.76	150	P	0.44	230	P	0.44	230	P	0.44	230	Q	0.68	185
47	N	0.76	150	P	0.44	230	P	0.44	230	Q	0.34	280	Q	0.34	280	R	0.34	300
100	P	0.44	230	Q	0.34	280	Q	0.34	280	Q	0.34	280	R	0.17	450	S	0.18	670
150	P	0.44	230	Q	0.34	280	Q	0.34	280	R	0.17	450	S	0.09	670	S	0.18	670
220	Q	0.34	280	Q	0.34	280	R	0.17	450	R	0.17	450	S	0.09	670	S	0.18	670
330	Q	0.34	280	R	0.17	450	R	0.17	450	S	0.09	670	S	0.09	670			
470	R	0.17	450	R	0.17	450	S	0.09	670	S	0.09	670						
1000	S	0.09	670	S	0.09	670												
1500	S	0.09	670															

Rated ripple current: (mA, 105°C, 120Hz); Impedance: (Ω, 20°C, 100KHz)