

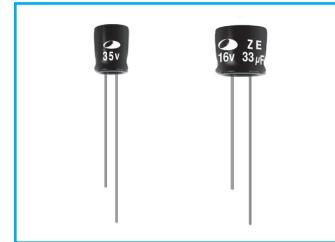
# MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

## ZE High Ripple Current, Height 5mmL Series

**M** Miniaturized   **S** Solvent Proof   **LZI** Low Impedance

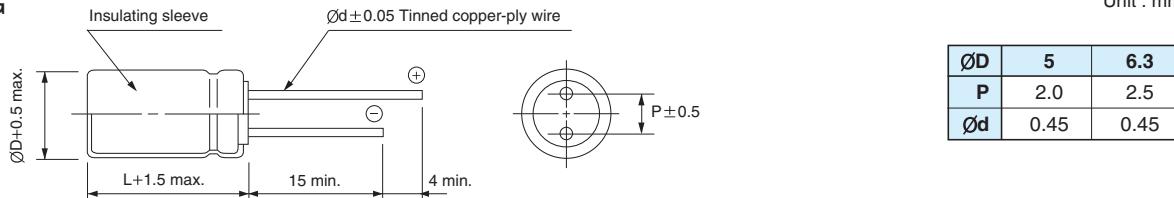
RE → **ZE**  
High Ripple

- Super miniature series with 5mmL height
- High ripple current & high temperature with RE series
- Load life of 2000 hours at 105°C
- Complied to the RoHS directive



Item	Characteristics																							
Operating temperature range	-55 ~ +105°C																							
Leakage current	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes) $I = 0.03CV$ or $4\mu A$ whichever is greater (after 1 minute)																							
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C																							
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td><math>\tan\delta</math></td> <td>0.22</td> <td>0.20</td> <td>0.18</td> <td>0.14</td> <td>0.12</td> </tr> </table>						WV	6.3	10	16	25	35	$\tan\delta$	0.22	0.20	0.18	0.14	0.12						
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Low temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>9</td> <td>7</td> <td>5</td> <td>3</td> <td>3</td> </tr> </table>						WV	6.3	10	16	25	35	Z-25°C / Z+20°C	3	3	2	2	2	Z-40°C / Z+20°C	9	7	5	3	3
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Z-25°C / Z+20°C	3	3	2	2	2																			
Z-40°C / Z+20°C	9	7	5	3	3																			
Load life	After an application of DC bias voltage plus the rated AC ripple current for 2000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.																							
	<table border="1"> <tr> <td>Leakage current</td> <td colspan="5">Less than specified value</td></tr> <tr> <td>Capacitance change</td> <td colspan="5">Within <math>\pm 20\%</math> of the initial value</td></tr> <tr> <td><math>\tan\delta</math></td> <td colspan="5">Less than 200% of the specified value</td></tr> </table>						Leakage current	Less than specified value					Capacitance change	Within $\pm 20\%$ of the initial value					$\tan\delta$	Less than 200% of the specified value				
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Shelf life (at 105°C)	After 1000 hours no load test, leakage current, capacitance and $\tan\delta$ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4																							

### DRAWING



Unit : mm

### DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item μF	6.3			10			16			25			35			
	ØD × L (mm)	Imp.(Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	ØD × L (mm)	Imp.(Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	ØD × L (mm)	Imp.(Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	ØD × L (mm)	Imp.(Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	ØD × L (mm)	Imp.(Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	
1														5×5	2.40	100
1.5														5×5	2.40	100
2.2														5×5	2.40	100
3.3														5×5	2.40	100
4.7														5×5	2.40	100
6.8														5×5	2.40	100
10										5×5	2.40	100		5×5	2.40	100
15							5×5	2.40	100	5×5	2.40	100		5×5	2.40	100
22							5×5	2.40	100	5×5	2.40	100		6.3×5	0.75	140
33	5×5	2.40	100	5×5	2.40	100	5×5	2.40	100	6.3×5	0.75	140		6.3×5	0.75	140
47	5×5	2.40	100	5×5	2.40	100	6.3×5	0.75	140	6.3×5	0.75	140				
68	6.3×5	0.75	140	6.3×5	0.75	140	6.3×5	0.75	140							
100	6.3×5	0.75	140	6.3×5	0.75	140										

### FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	120Hz	1kHz	10kHz	50kHz	100kHz ≤
~ 33	0.35	0.55	0.75	0.87	1.00
47 ~	0.40	0.60	0.80	0.90	1.00