

# ALUMINUM ELECTROLYTIC CAPACITORS

**SZ** Ultra Low ESR Series

- Features: 105°C 1000~2000 hours ,Lower ESR and higher ripple current
- Recommended Applications: Applicable for switching regulator of computer, especially for high frequency

**SZ**  
↑ Low E.S.R  
SC

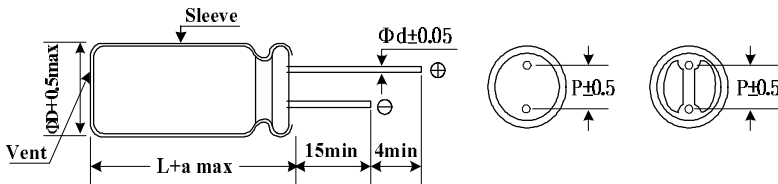


- Corresponding product to RoHS

## Specifications

Item	Characteristics																
Operating Temperature Range	-40 ~ +105°C																
Rated Voltage Range	6.3 ~ 16VDC																
Rated Capacitance Range	470 ~ 3300 µF																
Capacitance Tolerance	± 20 % at 120Hz , 20°C																
Leakage Current (MAX)(20°C)	I=0.03CV ,(After rated voltage applied for 2 minutes )																
Dissipation Factor (MAX) (tan δ ) (120Hz ,20°C)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> </tr> <tr> <td>tan δ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> </tr> </table>	WV	6.3	10	16	tan δ	0.22	0.19	0.16								
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When nominal capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.																	
Low Temperature Stability Impedance Ratio (MAX)	<table border="1"> <tr> <td>WV</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Z(120Hz)</td> <td>6.3</td> <td>10</td> <td>16</td> </tr> <tr> <td>Z-25°C / Z+20°C</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> </tr> </table>	WV				Z(120Hz)	6.3	10	16	Z-25°C / Z+20°C	2	2	2	Z-40°C / Z+20°C	3	3	3
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	Z(120Hz)	6.3	10	16													
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After applying rated voltage with ripple current for 2000 hours at 105°C, the capacitors shall meet the following requirements.																	
Endurance	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ± 25 % of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value</td> </tr> </table>	Capacitance Change	Within ± 25 % of initial value	Dissipation Factor	Not more than 200% of specified value	Leakage Current	Not more than the specified value										
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Leakage Current	Not more than the specified value																
*If dimension is down size,Endurance will be less 1000 hours than standard.																	
Shelf Life	After placed at 105°C without voltage applied for 1000 hours, the capacitors shall meet the same requirement as Endurance.																

## Diagram of Dimensions



φ D	8	10
P	3.5	5.0
φ d	0.6	0.6
a	1.5	1.5

## Multiplier for Ripple Current

Frequency coefficient

Frequency (Hz)	120	1K	10K	100K
Factor	0.5	0.8	0.9	1.0

# ALUMINUM ELECTROLYTIC CAPACITORS

# SZ

Ultra Low ESR  
Series

## ■ Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated ( Surge) Voltage 6.3V ( 8 )			
CAP ( $\mu$ F )	D x L (mm)	Ripple Current (mA/ rms 105°C / 100KHz)	ESR (m $\Omega$ Max 20°C / 100KHz)
820	8 x 11	1036	43
1200	8 x 15	1355	34
1500	8 x 20	1740	25
	10 x 12.5	1400	31
1800	10 x 16	1818	23
2200	10 x 20	2318	15
3300	10 x 25	2364	14

Rated ( Surge) Voltage 10V ( 13 )			
CAP ( $\mu$ F )	D x L (mm)	Ripple Current (mA/ rms 105°C / 100KHz)	ESR (m $\Omega$ Max 20°C / 100KHz)
680	8 x 11	1036	43
1000	8 x 15	1355	34
	10 x 12.5	1400	31
1500	8 x 20	1700	25
	10 x 16	1818	23
1800	10 x 20	2318	16
2200	10 x 25	2545	14

Rated ( Surge) Voltage 16V ( 20 )			
CAP ( $\mu$ F )	D x L (mm)	Ripple Current (mA/ rms 105°C / 100KHz)	ESR (m $\Omega$ Max 20°C / 100KHz)
470	8 x 11	1036	43
680	8 x 15	1355	34
	10 x 12.5	1400	31
1000	8 x 20	1700	25
	10 x 16	1818	23
1500	10 x 20	2318	16
1800	10 x 25	2546	14

☆ Size: D  $\phi$  x L (mm)   ☆ Ripple Current: (mA/rms), 105°C, 100KHz   ☆ ESR (m $\Omega$ ), 20°C, 100KHz