



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

ZA

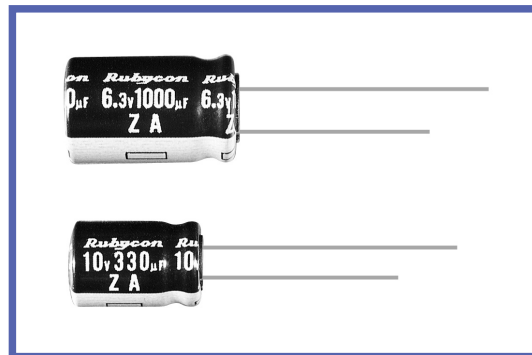
ZA SERIES

Previous Series

105°C Ultra Low impedance.

◆ FEATURES

- Extremely reduced impedance at high frequency range.
- Suitable for miniaturized and high performance equipments.



◆ SPECIFICATIONS

Items	Characteristics																
Category Temperature Range	-40~+105°C																
Rated Voltage Range	6.3~35V.DC																
Capacitance Tolerance	±20%(20°C,120Hz)																
Leakage Current(MAX)	I=0.01CV or 3µA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(µA) C=Rated Capacitance(µF) V=Rated Voltage(V)																
Dissipation Factor(MAX)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>(20°C,120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.15</td> <td>0.13</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td></td> </tr> </table>	Rated Voltage (V)	6.3	10	16	25	35	(20°C,120Hz)	tanδ	0.15	0.13	0.12	0.10	0.10			
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tanδ	0.15	0.13	0.12	0.10	0.10												
Endurance	<p>After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> <td>Case Size</td> <td>Life Time (hrs)</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> <td>L=7</td> <td>1000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>φ6.3x11L</td> <td>2000</td> </tr> <tr> <td></td> <td></td> <td>φ8,φ10</td> <td>3000</td> </tr> </table>	Capacitance Change	Within ±20% of the initial value.	Case Size	Life Time (hrs)	Dissipation Factor	Not more than 200% of the specified value.	L=7	1000	Leakage Current	Not more than the specified value.	φ6.3x11L	2000			φ8,φ10	3000
Capacitance Change	Within ±20% of the initial value.	Case Size	Life Time (hrs)														
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td></td> </tr> </table>	Rated Voltage (V)	6.3	10	16	25	35	(120Hz)	Z(-40°C)/Z(20°C)	2	2	2	2	2			
Rated Voltage (V)	6.3	10	16	25	35	(120Hz)											
Z(-40°C)/Z(20°C)	2	2	2	2	2												

◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

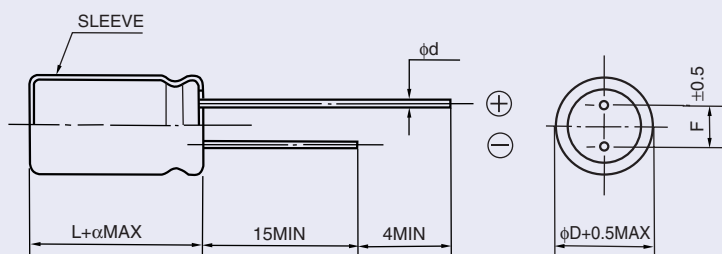
Frequency (Hz)		120	1k	10k	100k≤
Coefficient	4.7~10µF	0.24	0.53	0.80	1.00
	22~47µF	0.30	0.60	0.88	1.00
	100~330µF	0.38	0.75	0.95	1.00
	470~1000µF	0.52	0.85	0.98	1.00

◆ PART NUMBER

 ZA **DxL**
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Lead Forming Case Size

◆ DIMENSIONS

(mm)



ϕD	4X7	5X7	6.3X7	6.3X11	8X11.5	10X12.5	10X16
ϕd	0.45			0.5	0.6		
F	1.5	2.0	2.5	2.5	3.5	5.0	
α	1.0			1.5			

◆ STANDARD SIZE

Rated voltage 6.3V(0J)			
Rated capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX/20°C, 100kHz)
33	4X7	230	0.48
47	5X7	350	0.26
100	6.3X7	480	0.15
220	6.3X11	670	0.077
330	8X11.5	1000	0.043
470	8X11.5	1000	0.043
1000	10X16	1740	0.024

Rated voltage 10V(1A)			
Rated capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX/20°C, 100kHz)
22	4X7	230	0.49
33	5X7	350	0.26
47	5X7	350	0.26
100	6.3X7	480	0.15
220	8X11.5	1000	0.044
330	8X11.5	1000	0.043
470	10X12.5	1300	0.030



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Rated voltage 16V(1C)			
Rated capacitance (μF)	Size $\phi\text{D}\times\text{L}(\text{mm})$	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance ($\Omega\text{MAX}/20^\circ\text{C}$, 100kHz)
22	5X7	350	0.27
33	5X7	350	0.26
47	6.3X7	480	0.15
100	6.3X11	670	0.078
220	8X11.5	1000	0.044
330	10X12.5	1300	0.030
470	10X16	1740	0.025

Rated voltage 25V(1E)			
Rated capacitance (μF)	Size $\phi\text{D}\times\text{L}(\text{mm})$	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance ($\Omega\text{MAX}/20^\circ\text{C}$, 100kHz)
10	4X7	230	0.52
22	5X7	350	0.27
33	6.3X7	480	0.16
47	6.3X7	480	0.15
100	6.3X11	670	0.078
220	10X12.5	1300	0.031
330	10X16	1740	0.026

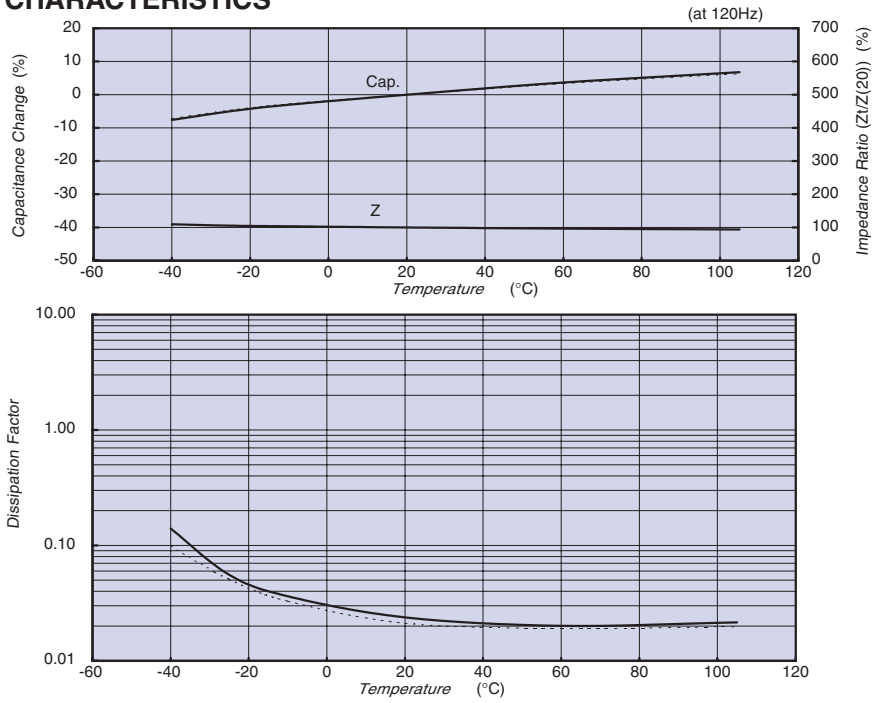
Rated voltage 35V(1V)			
Rated capacitance (μF)	Size $\phi\text{D}\times\text{L}(\text{mm})$	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance ($\Omega\text{MAX}/20^\circ\text{C}$, 100kHz)
4.7	4X7	230	0.64
10	5X7	350	0.33
22	6.3X7	480	0.17
33	6.3X7	480	0.16
47	6.3X11	670	0.089
100	8X11.5	1000	0.048
220	10X16	1740	0.026



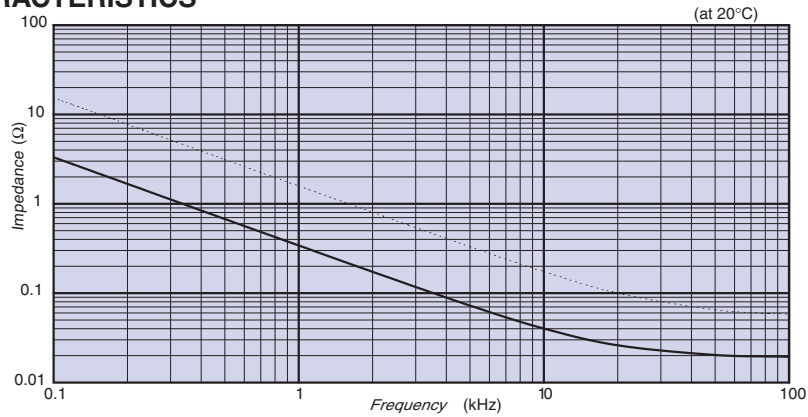
◆ CHARACTERISTIC DATA

————— 16 ZA 470 M 10X16
 - - - - - 25 ZA 100 M 6.3X11

• TEMPERATURE CHARACTERISTICS



• FREQUENCY CHARACTERISTICS



• ENDURANCE

