

# AXLAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS



## HIGH VOLTAGE TYPE

### Features

- \* Low impedance characteristics.
- \* Case sizes are smaller than conventional general-purpose capacitors, with very high performance.
- \* Can size large than 8mm diameter has safety vent on rubber bun.

### CHARACTERISTICS

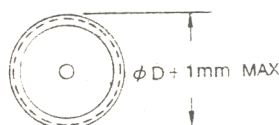
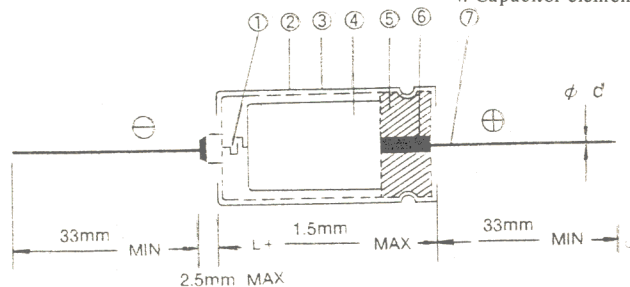
Item	Characteristic														
Operating Temperature Range	-25~+85°C														
Capacitance Tolerance	± 20% (at 20°C 120Hz)														
Leakage Current	$I = 0.03CV + 15 (\mu A)$ ( $CV \leq 1000$ ) $I = 0.02CV + 30 (\mu A)$ ( $CV > 1000$ ) After 5 minutes applying the rated DC working voltage at 20°C Where: C=rated capacitance in $\mu F$ . V=rated DC working voltage in V.														
Dissipation Factor (Tan $\delta$ ) ( At 20°C, 120 Hz )	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Tan <math>\delta</math></td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> </tr> </table> For capacitors whose capacitance exceeds 1,000 $\mu F$ , the specification of tan $\delta$ is increased by 0.02 for every addition of 1,000 $\mu F$ .	Rated voltage (V)	160	200	250	350	400	450	Tan $\delta$	0.15	0.15	0.20	0.20	0.24	0.24
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Low Temperature Characteristics	Impedance ratio at 120Hz <table border="1"> <tr> <td>Rated voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Z - 25°C / Z 20°C</td> <td>4</td> <td>8</td> <td>8</td> <td>12</td> <td>13</td> <td>16</td> </tr> </table>	Rated voltage (V)	160	200	250	350	400	450	Z - 25°C / Z 20°C	4	8	8	12	13	16
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Load Life	After 1000 hours' application of rated voltage at 85°C, capacitors meet the characteristics requirements listed at right. <table border="1"> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>tan <math>\delta</math></td> <td>200% or less of initial specified value</td> </tr> </table>	Leakage current	Initial specified value or less	Capacitance change	Within ±20% of initial value	tan $\delta$	200% or less of initial specified value								
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Shelf Life	After leaving capacitors under no load at 85°C for 1000 hours and applying voltage they meet the specified value for load life characteristics listed above.														
Marking	Printed with white color letter on black sleeve.														
Applicable Standards	Satisfies characteristic W of JIS C5141.														

### DIAGRAM OF DIMENSIONS

#### INTERNAL STRUCTURE

1. Plain foil
2. Insulating sleeve
3. Aluminum case
4. Capacitor element
5. Sealing rubber
6. Aluminum lead wire
7. Lead wire

Unit : mm



#### LEAD WIRE DIMENSIONS

$\phi D$	5 ~ 13	16 ~ 25
$\phi d$	0.6	0.8



## HIGH VOLTAGE TYPE DIMENSIONS & RIPPLE CURRENT

ENSIONS : Diameter (Dφ) × Length (L) m/m RIPPLE CURRENT : mA at 85°C , 120Hz

CAP (μF)	W.V. Code	160		200		250		350		400		450			
		2C		2D		2E		2V		2G		2W			
1	010	6.3 × 12	18	6.3 × 12	19	6.3 × 12	18	8 × 13	19	8 × 16	19	8 × 16	19		
2.2	2R2	6.3 × 12	28	8 × 13	31	8 × 13	28	8 × 16	28	10 × 17	29	10 × 17	29		
3.3	3R3	8 × 13	38	8 × 16	40	8 × 16	35	10 × 17	36	10 × 17	38	10 × 17	40		
4.7	4R7	8 × 16	45	10 × 17	48	10 × 17	43	10 × 21	46	10 × 26	46	10 × 26	49		
10	100	10 × 17	73	10 × 21	80	10 × 21	69	10 × 21	72	13 × 25	79	13 × 25	81		
22	220	10 × 21	123	13 × 21	123	13 × 21	117	13 × 25	121	16 × 33	121	16 × 33	130		
33	330	13 × 21	150	13 × 21	166	13 × 25	148	16 × 26	159	18 × 33	159	18 × 33	168		
47	470	13 × 25	197	16 × 26	216	16 × 26	190	16 × 33	200	18 × 41	200	18 × 41	204		
100	101	16 × 33	320	16 × 33	343	18 × 42	355	18 × 42	315	25 × 45	339	25 × 45	346		Allowable ripple
220	221	18 × 42	539	25 × 45	539	25 × 45	514							Case size	ripple

### ● Frequency coefficient of allowable ripple current

W.V.	Frequency(Hz)				
	Cap.(μF)	120	300	1k	10k~
160 ~ 450	1 ~ 220	1	1.25	1.40	1.60

### ● Allowable ripple current vs. ambient temperature

Ambient temp.(°C)	~ +70	+85
Coefficient	1.27	1.0