

ALUMINUM ELECTROLYTIC CAPACITORS

LS

High temperature and Smaller Size Series

- Endurance : 105°C 2000 hours, smaller size than LG
- Ideally suitable for using in Switching Power Supplies and other industrial /commercial applications
- Corresponding product to RoHS

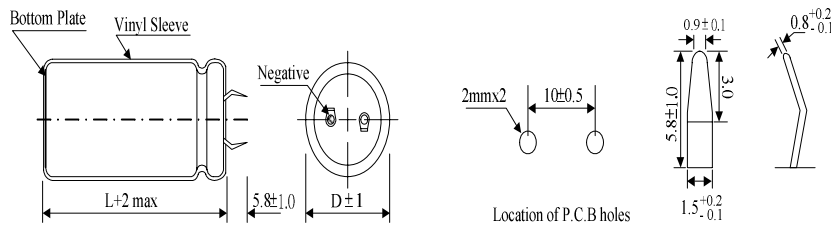
LS

 ↑ Smaller size
LG

■ Specifications

Item	Characteristics																				
Operating Temperature Range	-25 ~ +105°C																				
Rated Voltage Range	160 ~ 450VDC																				
Capacitance Range	100 ~ 3300 μ F																				
Capacitance Tolerance	\pm 20 % at 120Hz , 20°C																				
Leakage Current (MAX)	I=0.02CV or 3mA , whichever is smaller.(At 20°C,After 5 minutes) Where, I :Leakage Current (μ A) ; C:Nominal Capacitance(μ F) ; V:Rated Voltage(v)																				
Dissipation Factor (MAX) (tan δ) (120Hz ,20°C)	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 15%;">Rated voltage(V)</td> <td style="width: 10%;">160~400</td> <td style="width: 10%;">420~450</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>tan δ</td> <td>0.15</td> <td>0.20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Rated voltage(V)	160~400	420~450								tan δ	0.15	0.20							
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Low Temperature Stability Impedance Ratio (MAX)	Measurement frequency : 120Hz <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 15%;">Rated voltage(V)</td> <td style="width: 10%;">160~400</td> <td style="width: 10%;">420~450</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>4</td> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Rated voltage(V)	160~400	420~450								Z-25°C / Z+20°C	4	8							
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Endurance	After applying rated voltage with rated Ripple current for 2000hrs at 105°C , the capacitor shall meet the following requirements. <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 40%;">Capacitance Change</td> <td>Within \pm 20 % of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>initial specified value or less</td> </tr> </table>	Capacitance Change	Within \pm 20 % of initial value	Dissipation Factor	Not more than 200% of the specified value	Leakage Current	initial specified value or less														
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Shelf Life	After placed at 105°C without voltage applied for 1000 hours, the capacitor shall meet the same requirement as Endurance.																				

■ Diagram of Dimensions



■ Multiplier for Ripple Current

Frequency coefficient

Frequency	50	60	120	1K	10K
160~250V	0.85	0.88	1.00	1.30	1.50
315~450V	0.88	0.9	1.00	1.35	1.45

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■ Dimensions, Rated Ripple Current

Capacitance (μ F)	Rated (Surge) Voltage							
	160 (200)		200 (250)		220 (270)		250 (300)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
330					22x25	1.26		
390					22x30	1.34	22x30	1.08
							25x25	1.08
470			22x30	1.20	22x35	1.48	22x35	1.17
					25x30	1.40	25x30	1.30
560	22x30	1.40	22x35	1.48	22x40	1.45	22x40	1.40
			25x30	1.48	25x30	1.45	25x35	1.50
							30x25	1.26
680	22x35	1.50	22x40	1.60	22x40	1.49	22x45	1.35
	25x30	1.70	25x35	1.60	25x35	1.78	25x40	1.70
					30x30	1.65	30x30	1.70
820	22x40	2.00	22x45	1.75	22x50	1.93		
	25x35	2.00	25x40	1.75	25x40	1.93	25x45	2.00
			30x30	1.75	30x30	1.85	30x35	2.00
					35x25	1.93	35x30	2.00
1000	22x50	2.10						
	25x40	2.20	25x45	2.04	25x45	2.15	25x50	2.20
	30x30	2.20	30x35	2.04	30x35	2.33	30x40	2.20
					35x30	2.33	35x30	2.00
1200	25x45	2.30	25x50	2.30				
	30x35	2.30	30x40	2.30	30x40	2.50	30x45	2.30
			35x30	2.30	35x30	2.12	35x35	2.20
1500	25x50	2.50						
	30x40	2.50	30x45	2.57	30x45	2.30		
	35x30	2.50	35x35	2.57	35x35	2.25	35x40	2.30
1800								
	30x45	2.70	30x50	2.41				
	35x35	2.55	35x40	2.68	35x40	2.43	35x50	2.50
2200	30x50	2.90						
	35x45	2.90	35x45	2.63	35x50	2.95		
2700	35x50	3.00	35x55	3.27				
3300	35x60	3.10						

☆ Size: D ϕ x L (mm) ☆ Ripple Current : A/rms. 105°C, 120Hz

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■ Dimensions, Rated Ripple Current

Capacitance (μ F)	Rated (Surge) Voltage					
	400 (450)		420(470)		450 (500)	
	Size	Ripple	Size	Ripple	Size	Ripple
100					22x25	0.50
120	22x25	0.61	22x30	0.50	22x30	0.60
150			22x35	0.58	22x35	0.72
			25x25	0.65	25x30	0.79
180	22x35	0.73	22x35	0.64	22x40	0.79
	25x25	0.66	25x30	0.64	25x30	0.71
220	22x40	0.85	22x40	0.80	22x45	0.87
	25x30	0.77	25x35	0.80	25x35	0.78
			30x25	0.80	30x30	0.89
270	22x45	1.00	22x50	1.00	22x50	0.95
	25x35	1.00	25x40	1.00	25x45	0.95
	30x30	1.00	30x30	1.00	30x35	1.05
					35x25	0.95
330	22x50	1.04				
	25x40	1.04	25x45	1.10	25x50	1.20
	30x35	1.15	30x35	1.10	30x40	1.20
	35x25	1.04	35x30	1.10	35x30	1.20
390	25x45	1.26	25x50	1.20		
	30x35	1.26	30x40	1.20	30x45	1.38
	35x30	1.55	35x30	1.20	35x35	1.38
470	30x40	1.40	30x45	1.30	30x50	1.55
	35x35	1.55	35x35	1.30	35x40	1.55
560	30x50	1.63				
	35x40	1.63	35x40	1.60	35x45	1.70
680						
	35x45	1.80	35x45	2.00	35x50	1.91
820	35x50	2.00				

☆ Size: D ϕ x L (mm) ☆ Ripple Current : A/rms. 105°C, 120Hz