

Large Can Aluminum Electrolytic Capacitors

LV [For Long Life]

For Printed Circuit Board High-Performance Aluminum Electrolytic Power Supply Input and Output Filter Capacitors



DESCRIPTION

Features : 105°C 3000 hours, Longer life than LG, Snap-in terminal, High ripple current.

Recommended Applications : Smoothing circuit, TV/ Monitor, Adapter, SMPS.

MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

FREQUENCY (Hz)	50	60	120	400
COEFFICIENT	0.8	0.85	1.0	1.14
FREQUENCY (Hz)	1K	2.4K	5K	10K
COEFFICIENT	1.23	1.3	1.36	1.4

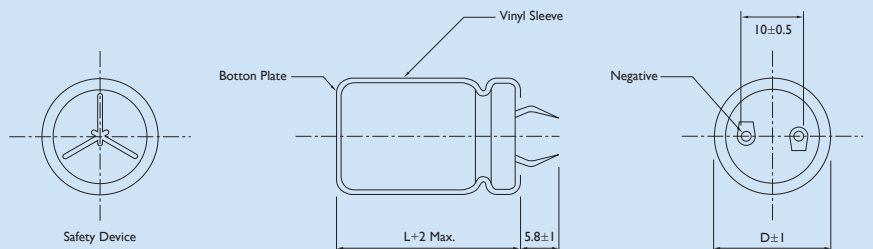
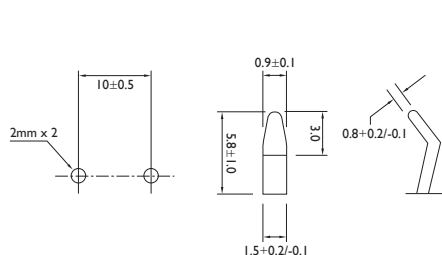
ELECTRICAL CHARACTERISTICS

Operating Temperature Range	-40 to +105°C	-25 to +105°C																								
Rated Voltage Range	10 to 100VDC	160 to 450VDC																								
Rated Capacitance Range	560 ~ 68000µF	270 ~ 2200µF																								
Capacitance Tolerance	±20% at 120Hz, 20°C																									
Leakage Current	$I \leq 0.02CV$ or 3mA whichever is smaller (After Rated Voltage Applied for 5 Minutes) I = Leakage Current (µA), C = Nominal Capacitance (µF), V = Rated Voltage (V)																									
Dissipation Factor (tanδ) (20°C, 120Hz)	<table border="1"> <tr> <td>Rate Voltage (V)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> <td>160</td> <td>180~400</td> <td>450</td> </tr> <tr> <td>D.F (%)</td> <td>55</td> <td>55</td> <td>45</td> <td>40</td> <td>35</td> <td>30</td> <td>25</td> <td>25</td> <td>15</td> <td>15</td> <td>25</td> </tr> </table> Dissipation Factor (tan δ) shall not exceed the values showed as above of standard rating		Rate Voltage (V)	10	16	25	35	50	63	80	100	160	180~400	450	D.F (%)	55	55	45	40	35	30	25	25	15	15	25
Rate Voltage (V)	10	16	25	35	50	63	80	100	160	180~400	450															
D.F (%)	55	55	45	40	35	30	25	25	15	15	25															
Endurance	After the rated voltage has been applied at 105°C for 3000 hours, the capacitors shall meet the following requirements. (a) Capacitance Change : Within ±20% of the Initial Value (b) Dissipation Factor : Not Exceeding 200% of the Specified Value (c) Leakage current : Not Exceeding the Specified Value																									
Shelf Life	After having been placed at 105°C without voltage applied for 1000 hours, the capacitors shall meet the same requirements as Endurance.																									

DIAGRAM OF DIMENSIONS

Unit: mm

Location of P.C.B. Holes



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)											
	10 (13)		16 (20)		25 (32)		35 (44)		50 (63)		63 (79)	
	SIZE	RIPPLE	SIZE	RIPPLE	SIZE	RIPPLE	SIZE	RIPPLE	SIZE	RIPPLE	SIZE	RIPPLE
1200											22 x 25	1.25
1500									22 x 25	1.25	22 x 30	1.45
											25 x 25	1.45
1800									22 x 30	1.45	22 x 35	1.60
											25 x 30	1.60
2200									22 x 30	1.60	22 x 40	1.89
									25 x 25	1.60	25 x 30	1.80
											30 x 25	1.85
2700							22 x 25	1.45	22 x 35	1.80	22 x 45	2.06
									25 x 30	1.80	25 x 35	2.00
											30 x 30	2.08
3300							22 x 30	1.60	22 x 40	2.05	25 x 40	2.32
									25 x 30	1.95	30 x 30	2.30
									30 x 25	2.01	35 x 25	2.35
3900					22 x 25	1.50	22 x 30	1.80	22 x 45	2.27	25 x 45	2.55
									25 x 35	2.20	30 x 35	2.55
									30 x 30	2.29	35 x 30	2.63
4700					22 x 30	1.80	22 x 35	2.23	22 x 50	2.50	25 x 50	2.83
							25 x 25	2.10	25 x 40	2.42	30 x 40	2.86
									30 x 30	2.40	35 x 30	2.80
									35 x 25	2.45		
5600					22 x 30	1.95	22 x 40	2.41	25 x 45	2.70	30 x 45	3.18
					25 x 25	1.95	25 x 30	2.30	30 x 35	2.70	35 x 35	3.15
							30 x 25	2.37	35 x 30	2.78		
6800			22 x 25	1.80	22 x 35	2.20	22 x 45	2.68	30 x 40	3.06	30 x 50	3.50
					25 x 30	2.20	25 x 35	2.60	35 x 30	3.00	35 x 40	3.50
							30 x 30	2.70				
8200			22 x 30	2.05	22 x 40	2.47	22 x 50	3.02	30 x 45	3.38	35 x 45	3.90
			25 x 25	2.05	25 x 35	2.50	25 x 40	2.93	35 x 35	3.35		
					30 x 25	2.45	30 x 30	2.90				
							35 x 25	2.96				

Note: I. Ripple Current: (A/rms) 105°C, 120Hz



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)											
	10 (13) SIZE		16 (20) SIZE		25 (32) SIZE		35 (44) SIZE		50 (63) SIZE		63 (79) SIZE	
		RIPPLE		RIPPLE		RIPPLE		RIPPLE		RIPPLE		RIPPLE
10000	22 x 25	1.80	22 x 35	2.45	22 x 45	2.75	25 x 45	3.20	30 x 50	3.50		
			25 x 30	2.45	25 x 40	2.80	30 x 35	3.20	35 x 40	3.70		
			30 x 30	2.75	35 x 30	3.30						
12000	22 x 30	2.05	22 x 40	2.73	22 x 50	3.13	25 x 50	3.64	35 x 50	4.20		
	25 x 25	2.05	25 x 30	2.60	25 x 45	3.22	30 x 40	3.67				
			30 x 25	2.68	30 x 35	3.19	35 x 30	3.60				
			35 x 25	3.10								
15000	22 x 35	2.45	22 x 45	2.99	25 x 50	3.43	30 x 45	4.04				
	25 x 30	2.45	25 x 35	2.90	30 x 40	3.47	35 x 35	4.00				
	30 x 25	2.55	30 x 30	3.02	35 x 30	3.40						
18000	22 x 40	2.94	22 x 50	3.43	30 x 45	3.94	35 x 40	4.60				
	25 x 30	2.80	25 x 40	3.33	35 x 35	3.90						
	30 x 30	3.11	30 x 30	3.30								
			35 x 25	3.37								
22000	22 x 45	3.24	25 x 45	3.70	30 x 50	4.30	35 x 50	5.10				
	25 x 35	3.15	30 x 35	3.70	35 x 40	4.30						
	30 x 30	3.28	35 x 30	3.81								
	35 x 25	3.37										
27000	25 x 40	3.50	30 x 40	4.15	35 x 45	4.85						
	30 x 35	3.67	35 x 35	4.27								
	35 x 30	3.78										
33000	25 x 45	4.00	30 x 50	4.65								
	30 x 40	4.20	35 x 40	4.65								
	35 x 30	4.08										
39000	25 x 50	4.45	35 x 45	5.25								
	30 x 45	4.67										
	35 x 35	4.63										
47000	35 x 40	4.90	35 x 50	5.80								
56000	35 x 45	5.50										
68000	35 x 50	6.05										

Note: I_r Ripple Current: (A/rms) 105°C, 120Hz

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)									
	80 (100) SIZE		100 (125) SIZE		160 (200) SIZE		180 (225) SIZE		200 (250) SIZE	
		RIPPLE		RIPPLE		RIPPLE		RIPPLE		RIPPLE
220									22 x 25	0.85
270					22 x 25	0.85	22 x 25	0.85	22 x 30	1.00
330					22 x 30	1.00	22 x 30	1.10	22 x 30	1.15
									25 x 25	1.15
390					22 x 30	1.15	22 x 35	1.32	22 x 35	1.30
					25 x 25	1.15	25 x 25	1.25	25 x 30	1.30
470					22 x 35	1.30	22 x 40	1.47	22 x 40	1.52
					25 x 30	1.30	25 x 30	1.40	25 x 35	1.54
									30 x 25	1.49
560			22 x 25	1.20	22 x 40	1.57	22 x 45	1.70	22 x 45	1.70
					25 x 30	1.50	25 x 35	1.63	25 x 35	1.65
					30 x 25	1.54	30 x 25	1.60	30 x 30	1.72
680			22 x 30	1.35	22 x 45	1.75	22 x 50	1.87	25 x 45	1.97
					25 x 35	1.70	25 x 40	1.82	30 x 35	1.97
					30 x 30	1.77	30 x 30	1.80	35 x 30	2.02
							35 x 25	1.84		
820	22 x 25	1.20	22 x 30	1.50	22 x 50	2.03	25 x 45	2.05	25 x 45	2.20
			25 x 25	1.50	25 x 40	1.97	30 x 35	2.05	30 x 35	2.10
					30 x 30	1.95	35 x 30	2.11	35 x 30	2.16
					35 x 25	1.99				
1000	22 x 30	1.35	22 x 35	1.70	25 x 45	2.15	25 x 50	2.27	30 x 45	2.32
			25 x 30	1.70	30 x 35	2.15	30 x 40	2.29	35 x 35	2.30
					35 x 30	2.21	35 x 30	2.25		
1200	22 x 35	1.59	22 x 40	1.97	30 x 40	2.45	30 x 45	2.57	30 x 50	2.75
	25 x 25	1.50	25 x 35	1.99	35 x 35	2.52	35 x 35	2.55	35 x 40	2.75
			30 x 25	1.95						
1500	22 x 40	1.78	22 x 45	2.15	30 x 50	2.75	35 x 40	2.85	35 x 45	2.90
	25 x 30	1.70	25 x 40	2.19	35 x 40	2.75				
	30 x 25	1.75	30 x 30	2.15						
			35 x 25	2.21						

Note: I. Ripple Current: (A/rms) 105°C, 120Hz



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)									
	80 (100) SIZE		100 (125) SIZE		160 (200) SIZE		180 (225) SIZE		200 (250) SIZE	
		RIPPLE		RIPPLE		RIPPLE		RIPPLE		RIPPLE
1800	22 x 45	2.01	25 x 45	2.45	35 x 45	3.00	35 x 50	3.10		
	25 x 35	1.95	30 x 35	2.45						
	30 x 30	2.03	35 x 30	2.52						
2200	25 x 40	2.17	25 x 50	2.75	35 x 50	3.50				
	30 x 30	2.15	30 x 40	2.75						
	35 x 25	2.19	35 x 35	2.86						
2700	25 x 45	2.45	30 x 45	3.08						
	30 x 35	2.45	35 x 35	3.05						
	35 x 30	2.52								
3300	30 x 40	2.75	30 x 50	3.45						
	35 x 35	2.83	35 x 40	3.45						
3900	30 x 45	3.13	35 x 45	3.90						
	35 x 35	3.10								
4700	35 x 40	3.40	35 x 45	3.90						
			35 x 50	4.30						
5600	35 x 50	3.80								

Note: I_r Ripple Current: (A/rms) 105°C, 120Hz

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)									
	250 (300) SIZE		315 (365) SIZE		350 (400) SIZE		400 (450) SIZE		450 (500) SIZE	
		RIPPLE		RIPPLE		RIPPLE		RIPPLE		RIPPLE
56									22 x 25	0.55
68							22 x 25	0.55	22 x 30	0.65
82			22 x 25	0.55	22 x 25	0.60	22 x 30	0.65	22 x 35	0.80
							25 x 25	0.65	25 x 25	0.75
100			22 x 30	0.65	22 x 30	0.70	22 x 35	0.79	22 x 40	0.89
					25 x 25	0.70	25 x 25	0.75	25 x 30	0.85
									30 x 25	0.85
120			22 x 30	0.75	22 x 35	0.80	22 x 40	0.89	22 x 45	0.95
			25 x 25	0.75	25 x 30	0.80	25 x 30	0.85	25 x 35	0.92
							30 x 25	0.87	30 x 25	0.90
150	22 x 25	0.75	22 x 35	0.80	22 x 40	0.86	22 x 40	0.85	22 x 50	1.14
			25 x 30	0.80	25 x 35	0.87	22 x 45	0.93	25 x 40	1.11
					30 x 25	0.85	25 x 35	0.90	30 x 30	1.10
							30 x 30	0.94		
							35 x 25	0.96		
180	22 x 30	0.85	22 x 40	1.01	22 x 45	1.05	22 x 50	1.14	25 x 45	1.25
			25 x 35	1.02	25 x 40	1.07	25 x 40	1.11	30 x 35	1.24
			30 x 25	1.00	30 x 30	1.05	30 x 30	1.10	35 x 25	1.20
							35 x 25	1.12		
220	22 x 30	1.00	22 x 45	1.10	22 x 50	1.16	25 x 45	1.20	25 x 50	1.36
	25 x 25	1.00	25 x 40	1.12	25 x 45	1.20	30 x 35	1.20	30 x 40	1.38
			30 x 30	1.10	30 x 35	1.18	35 x 30	1.24	35 x 30	1.35
					35 x 25	1.15				
270	22 x 35	1.22	25 x 45	1.25	25 x 50	1.31	25 x 50	1.36	30 x 45	1.51
	25 x 25	1.15	30 x 35	1.25	30 x 40	1.33	30 x 40	1.38	35 x 35	1.50
					35 x 30	1.30	35 x 30	1.35		
330	22 x 40	1.36	25 x 50	1.53	30 x 45	1.46	30 x 45	1.51	30 x 45	1.50
	25 x 30	1.30	30 x 40	1.53	35 x 35	1.45	35 x 35	1.50	30 x 50	1.70
			35 x 30	1.50					35 x 40	1.70

Note: I. Ripple Current: (A/rms) 105°C, 120Hz



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)									
	250 (300) SIZE		315 (365) SIZE		350 (400) SIZE		400 (450) SIZE		450 (500) SIZE	
		RIPPLE		RIPPLE		RIPPLE		RIPPLE		RIPPLE
390	22 x 45	1.54	30 x 45	1.71	30 x 50	1.65	30 x 50	1.70	35 x 45	1.90
	25 x 35	1.48	35 x 30	1.60	35 x 40	1.65	35 x 40	1.70		
	30 x 25	1.45								
	35 x 25	1.59								
470	22 x 50	1.78	30 x 50	1.85	35 x 45	1.85	35 x 40	1.70	35 x 50	2.10
	25 x 40	1.75	35 x 35	1.75			35 x 45	1.90		
	30 x 30	1.72								
	35 x 30	1.88								
560	25 x 40	1.80	35 x 40	2.00	35 x 50	2.10	35 x 50	1.90		
	30 x 35	1.89								
	35 x 30	1.94								
680	25 x 50	2.10	35 x 45	2.20	35 x 50	2.30	35 x 50	2.10		
	30 x 40	2.10								
	35 x 35	2.18								
820	30 x 45	2.30								
	35 x 40	2.39								
1000	30 x 50	2.55								
	35 x 40	2.40								
	35 x 45	2.65								
1200	35 x 50	2.90								

Note: I. Ripple Current: (A/rms) 105°C, 120Hz