Large Can Aluminum Electrolytic Capacitors

Series

CLA

FEATURESS

1. Directly mountable on printed circuit board without holders
2. Smaller low profile sizes than ordinary capacitors.
3. Terminal spacing fixed at 10mm for PC board plug in.
4. Aluminum case designed explosion –proof vent

SPECIFICATIONS

Item	Performance Characteristics
Operating Temperature Range	-40 to +85℃
Rated Working voltage Range	16 to 450V
Nominal Capacitance Range	56~56000(uF)
Capacitance Tolerance	±20%（120Hz，+20℃）
Leakage Current	I≤3 $\sqrt{CV}$ after 5minutes application of rated working voltage at +20℃

Dissipation Factor tan δ (120Hz+20℃)

Working voltage(V)	16	25	35	50	63	80	100	160~250	400~450
tan δ (max.)	0.50	0.40	0.35	0.35	0.30	0.25	0.20	0.15	0.20

Low Temperature characteristics

Impedance ratio max. at 120Hz

Working voltage(V)	16~100	160~250	400~450
Z-25℃/Z+20℃	4	3	8
Z-40℃/Z+20℃	15	12	12

Surge voltage

Working voltage(V)	10	16	25	35	40	50	63	100
Surge voltage	13	20	32	44	50	63	79	125

Working voltage(V)	160	200	250	350	400	450
Surge voltage	200	250	300	400	450	500

High temperature Loading

Test conditions
The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 3000 hours at 85℃
Post test requirements at +20℃
Leakage current : ≤ Initial specified value
Capacitance change : ≤±20% of initial measured value
tan δ : ≤200% of initial specified value

Shelf life

At 85℃ no voltage applied after 1000hours the capacitors shall meet the following limite
Post test requirements at+20℃
Leakage current :≤200% of Initial specified value
Capacitance change :≤±15% of initial measured value
Tan δ :≤150% of initial specified value

Others	JIS C-5141 JIS C-5102

Ripple current MULTIPLIERS

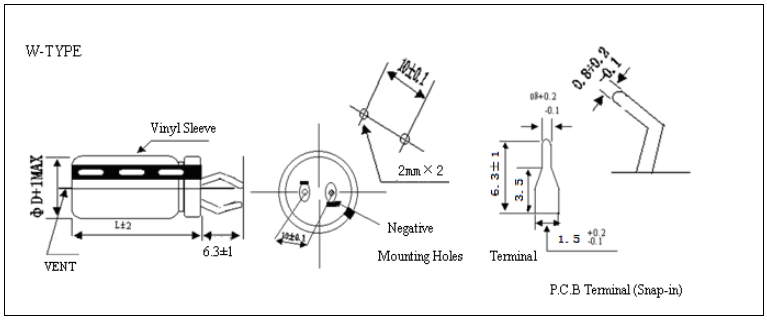
1)Maximum rims ripple current at 120Hz,85℃ are given in the table

2)Temperature multiplying factor: Where capacious are operated at temperature other than 85℃,the maximum ripple current must be multiplied by the figure shout in the table below.

Temperature coefficient

Temperature (℃)	20~45	65	75	85
Factor	1	0.91	0.86	0.73

3) Frequency multiplying factor:

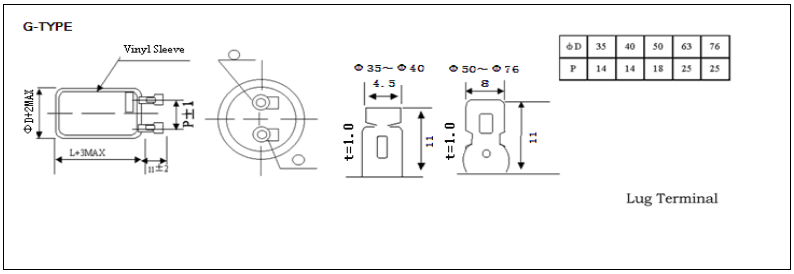


Large Can Aluminum Electrolytic Capacitors

If capacitor are used to filter circuits at a frequency other than120Hz,the maximum ripple current must be multiplied by the figure shown in the table below.

Frequency coefficient

Frequency(Hz)	60	120	1k	10~50k
25~100V	0.9	1.0	1.15	1.25
160~250V	0.8	1.0	1.15	1.47
350~450V	0.8	1.0	1.15	1.47



DIMENSIONS

ΦD×L(mm)

Voltage / Cap.(uF) Code	ΦD	16V(1C) 22	16V(1C) 25	16V(1C) 30	16V(1C) 35	25V(1E) 22	25V(1E) 25	25V(1E) 30	25V(1E) 35	35V(1V) 22	35V(1V) 25	35V(1V) 30	35V(1V) 35
3900	398									22×25			
										2.16			
4700	478									22×30	25×25		
										2.43	2.43		
5600	568					22×25				22×35			
						2.21				2.68			
6800	688					22×30	25×25			22×40	25×30	30×25	
						2.48	2.47			2.98	2.83	2.95	
8200	828	22×25				22×35				22×45	25×35		
		2.56				2.86				3.30	3.18		
10000	109	22×30				22×40	25×30	30×25		22×50	25×40	30×30	
		2.98				3.31	3.15	3.27		3.75	3.65	3.61	
12000	129	22×30	25×25			22×45	25×35	30×30			25×45	30×35	35×30
		3.13	3.11			3.77	3.63	3.80			4.15	4.14	4.27
15000	159	22×35	25×30	30×25		22×50	25×40					30×40	35×35
		3.69	3.61	3.68		4.21	4.10					4.78	4.95
18000	189	22×40	25×35				25×45	30×35	35×30			30×45	35×40
		3.98	3.98				4.55	4.54	4.66			5.30	5.53
22000	229	22×50	25×40	30×30				30×45	35×35				35×45
		4.52	4.43	4.36				5.33	5.26				6.22
27000	279		25×45	30×35				30×50	35×40				35×50
			4.97	4.95				5.96	5.93				6.89
33000	359			30×40	35×30				35×45				
				5.61	5.46				6.66				
39000	399			30×45	35×35				35×50				
				5.61	6.12				7.32				
47000	479			30×50	35×40								
				6.93	6.89								
56000	569				35×45							Case Size	
					7.69							Allowable ripple	

Allowable Ripple (mA rms)at 85℃120Hz

ΦD×L(mm)

Voltage / Cap.(uF) Code	ΦD	50V(1H) 22	50V(1H) 25	50V(1H) 30	50V(1H) 35	63V(1J) 22	63V(1J) 25	63V(1J) 30	63V(1J) 35	80V(1K) 22	80V(1K) 25	80V(1K) 30	80V(1K) 35
1200	128									22×25			
										1.68			
1500	158									22×30			
										1.98			
1800	188					22×25				22×35	25×30		
						1.83				2.11	2.12		
2200	228					22×30	25×25			22×40	25×30	30×25	
						2.14	2.14			2.45	2.46	2.56	
2700	278					22×35	25×30			22×45	25×35		
						2.50	2.52			2.85	2.86		
3300	338	22×30	25×25			22×40	25×35	30×25		22×50	25×40	30×35	
		2.36	2.35			2.72	2.74	2.84		3.23	3.29	3.25	
3900	398	22×35	25×30			22×45	25×35				25×45	30×35	
		2.67	2.68			3.09	3.13				3.71	3.70	

Large Can Aluminum Electrolytic Capacitors

4700	478	22×40	25×35	30×25	35×25	22×50	25×40	30×35	35×25		25×50	30×40	35×35
		3.02	3.07	2.99	3.30	3.69	3.59	3.54	3.25		4.22	4.23	4.12
5600	568	22×45	25×40	30×30			25×45	30×35				30×45	35×35
		3.41	3.47	3.42			4.01	4.00				4.70	4.64
6800	688	22×50	25×45	30×35				30×40	35×30				35×40
		3.85	3.75	3.93				4.55	4.44				5.24
8200	828		25×50	30×40	35×30			30×45	35×35				35×45
			4.44	4.47	4.38			5.12	5.05				5.89
10000	109			30×45	35×35				35×40				
				5.08	5.01				5.75				
12000	129			30×50	35×40				35×45				
				5.72	5.69				6.47				
15000	159				35×45								
					6.56								
18000	189				35×50							Case Size	
					7.14							Allowable ripple	

Allowable Ripple (mA rms)at 85℃120Hz

DIMENSIONS

ΦD×L(mm)

Voltage / Cap.(uF) Code	ΦD	100V(2A)				160V(2C)				200V(2D)			
		22	25	30	35	22	25	30	35	22	25	30	35
270	277									22×30			
										1.25			
330	337									22×30			
										1.42			
390	397					22×30				22×35	25×30		
						1.55				1.62	1.63		
470	477					22×30	25×25			22×40	25×30		
						1.76	1.76			1.82	1.85		
560	567					22×35	25×30			22×45	25×35	30×30	
						1.90	1.90			2.10	2.10	2.10	
680	687					22×40	25×35	30×25		22×50	25×40	30×30	
						2.25	2.25	2.25		2.32	2.35	2.35	
820	827					22×45	25×40	30×30			25×45	30×35	35×30
						2.45	2.45	2.45			2.55	2.55	2.56
1000	108						25×45	30×35	35×25			30×40	35×30
							2.80	2.80	2.80			2.96	2.96
1200	128	22×35	25×30				25×50	30×40	35×30			30×45	35×35
		2.11	2.11				3.25	3.25	3.25			3.42	3.42
1500	158	22×40	25×35	30×25				30×45	35×35				35×40
		2.45	2.47	2.56				3.75	3.75				3.90
1800	188	22×45	25×35					30×50	35×40				35×45
		2.77	2.81					4.00	4.00				4.25
2200	228	22×50	25×40	30×35					35×45				
		3.15	3.21	3.17					4.50				
2700	278		25×50	30×40	35×30				35×50				
			3.66	3.65	3.77				5.15				
3300	338			30×45									
				4.18									
3900	398			30×50	35×35								
				4.67	4.61								
4700	478			30×50	35×40								
				5.26	5.23								
5600	568				35×50							Case Size	
					5.88							Allowable ripple	

Allowable Ripple (mA rms)at 85℃120Hz

ΦD×L(mm)

Voltage / Cap.(uF) Code	ΦD	250V(2E)				400V(2G)				450V(2W)			
		22	25	30	35	22	25	30	35	22	25	30	35
56	566									22×25			
										0.59			
68	686									22×30			
										0.65			
82	826					22×25				22×30	25×25		
						0.75				0.80	0.80		

Large Can Aluminum Electrolytic Capacitors

100	107					22×30				22×35	25×30		
						0.79				0.95	0.95		
120	127					22×35	25×30			22×40	25×35	30×25	
						0.96	0.96			1.06	1.08	1.10	
150	157					22×40	25×30			22×50	25×40	30×30	
						1.23	1.25			1.23	1.25	1.25	
180	187					22×45	25×35	30×30			25×45	30×40	
						1.31	1.35	1.36			1.41	1.48	
220	227	22×30				22×50	25×40	30×35	35×25		25×50	30×40	35×30
		1.20				1.55	1.52	1.56	1.56		1.59	1.60	1.58
270	277	22×35	25×30				25×45	30×35	35×30			30×45	35×35
		1.35	1.35				1.70	1.69	1.68			1.85	1.83
330	337	22×40	25×35				25×50	30×40	35×30			30×50	35×40
		1.55	1.55				1.95	1.95	1.92			2.10	2.08
390	397	22×45	25×35	30×30				30×45	35×35				35×45
		1.75	1.75	1.75				2.18	2.15				2.33
470	477	22×50	25×40	30×35				30×50	35×40				35×50
		1.95	1.95	1.95				2.48	2.48				2.52
560	567		25×45	30×35	35×30				35×45				
			2.25	2.25	2.25				2.75				
680	687		25×50	30×40	35×30				35×50				
			2.55	2.55	2.55				3.08				
820	827			30×45	35×35								
				2.85	2.85								
1000	108			30×50	35×40								
				3.20	3.20								
1200	128				35×45							Case Size	
					3.60							Allowable ripple	

Allowable Ripple (mA rms)at 85℃120Hz