



ALUMINUM ELECTROLYTIC CAPACITOR

LARGE CAPACITANCE

TYPE LS-- WITH SNAP-IN TERMINAL

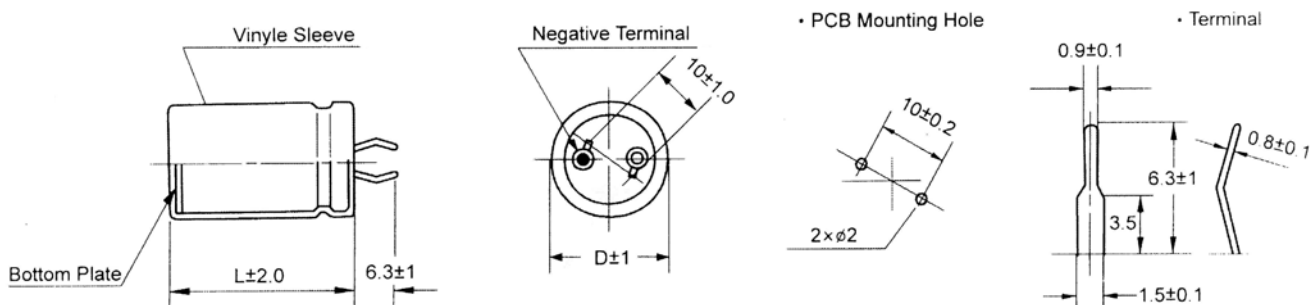
FEATURES:

With a snap-in type terminals for inserting into PCB directly to save the cost of using fixture.

SPECIFICATIONS:

Item	Type LS													
Operating Temp. Range	10~100V: -40℃ to +85℃							160~450V: -25℃ to +85℃						
Capacitance tolerance	±20% at 120 Hz, 20℃													
Leakage Current (I=DC Current in Ma max.)	I≤0.03CV , or 3mA whichever is smaller, measured after 5 minutes application of rated working voltage. Where, C =Rated Capacitance (μF), V =Rated Working Voltage (V DC)													
Working Voltage (DC)	10V	16V	25V	35V	50V	63V	100V	160V	200V	250V	350V	400V	450V	
Surge Voltage (DC)	13V	20V	32V	40V	63V	79V	125V	200V	250V	300V	400V	450V	500V	
Dissipation Factor (tan δ) max. at 120 Hz	W.V.		10V	16V	25V	35V	50~63V	100V	160~250V		350~450V			
	CV≤100,000		0.50	0.40	0.35	0.25	0.25	0.20	0.20		0.25			
	CV>100,000		0.60	0.50	0.45	0.35	0.30	0.25	0.20		0.25			
Impedance Ratio at Low Temperature at 120 Hz	W.V.				10~100V			160~250V			350~450V			
	Z@ -25℃ / Z@ +20℃				4			6			8			
	Z@ -40℃ / Z@ +20℃				15			--			--			
Load Life Test (after 1000 hours application of the rated voltage, at 85℃)	The capacitor shall meet following limits: Capacitance Change ≤±20% of initial value Leakage Current ≤specified maximum value Dissipation Factor ≤150% of specified maximum value													
Shelf Life Test (after 1000 hours exposing at 85℃ without voltage applied)	The capacitor shall meet following limits: Capacitance Change ≤±20% of initial value Leakage Current ≤specified maximum value Dissipation Factor ≤200% of specified maximum value													

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**CASE SIZE (DxL mm), PERMISSIBLE RIPPLE CURRENT (A rms, at 120 Hz, 85°C)
& MAX E.S.R. (Ω at 120 Hz, 20°C): for W.V. 10V~35V**

W.V.	10V			16V			25V			35V		
μF	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.
3300							22x25	2.03	0.176	22x25	2.04	0.176
							25x25	2.09	0.176	25x25	2.10	0.176
4700				22x25	1.81	0.141	22x30	2.49	0.159	22x30	2.41	0.123
				25x25	2.21	0.141	25x25	2.31	0.159	30x25	2.44	0.123
6800				22x25	2.40	0.122	22x35	2.87	0.110	22x40	2.98	0.085
				25x25	2.47	0.122	30x25	2.72	0.110	30x30	2.86	0.085
8200	22x25	2.39	0.101	22x30	2.70	0.101	22x40	3.16	0.091	22x45	3.25	0.071
	25x25	2.46	0.101	30x25	2.73	0.101	30x30	3.03	0.091	35x30	3.42	0.071
10000	22x30	2.69	0.083	22x35	3.00	0.083	22x45	3.45	0.075	25x45	3.41	0.058
	25x25	2.57	0.083	30x25	2.84	0.083	30x30	3.14	0.075	35x30	3.51	0.058
12000	22x30	2.81	0.083	22x40	3.30	0.069	22x50	3.74	0.062	25x50	3.68	0.048
	30x25	2.84	0.083	30x30	3.15	0.069	35x30	3.75	0.062	35x35	3.84	0.048
15000	22x35	3.14	0.066	22x45	3.62	0.055	25x45	3.78	0.050	30x45	4.08	0.039
	30x25	2.97	0.066	35x25	3.55	0.055	35x30	3.80	0.050			
22000	22x45	3.79	0.045	25x45	4.25	0.038	30x50	4.94	0.034			
	30x30	3.45	0.045	35x30	4.37	0.038						



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CASE SIZE (DxL mm), PERMISSIBLE RIPPLE CURRENT (A rms, at 120 Hz, 85°C)

& MAX E.S.R. (Ω at 120 Hz, 20°C): for W.V. 50V~160V

W.V.	50V			63V			100V			160V		
μF	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.
330										22x25	1.11	1.005
										25x25	1.14	1.005
470										22x35	1.53	0.705
										30x25	1.45	0.705
560										22x35	1.67	0.592
										30x25	1.58	0.592
680										22x40	1.95	0.488
										30x30	1.87	0.488
820							22x30	1.55	0.404	22x50	2.36	0.404
							25x25	1.54	0.404	30x30	2.05	0.404
1000				22x25	1.42	0.414	22x30	1.71	0.332	25x45	2.55	0.332
				25x25	1.46	0.414	30x25	2.20	0.332	35x30	2.62	0.332
1500				22x25	1.74	0.276	22x40	2.38	0.276	30x45	3.28	0.221
				30x25	1.81	0.276	35x30	2.54	0.276			
2200	22x25	1.92	0.226	22x30	2.08	0.226	25x45	2.77	0.188			
	25x25	1.98	0.226	30x25	2.10	0.226	35x30	3.07	0.188			
3300	22x35	2.51	0.151	22x45	2.81	0.151	30x45	3.27	0.126			
	30x25	2.38	0.151	35x25	2.76	0.151						
4700	22x40	2.89	0.106	25x45	3.11	0.106						
	35x25	2.99	0.106	35x30	3.20	0.106						
6800	25x45	3.37	0.073	30x45	3.54	0.073						
	35x30	3.46	0.073									
8200	25x50	3.62	0.061									
	35x35	3.79	0.061									
10000	30x45	3.72	0.050									



ALUMINUM ELECTROLYTIC CAPACITOR

TYPE LS -- LARGE CAPACITANCE WITH SNAP-IN TERMINAL

CASE SIZE (D x L mm), PERMISSIBLE RIPPLE CURRENT (A rms, at 120 Hz, 85°C)

& MAX E.S.R. (Ω at 120 Hz, 20°C): for W.V. 200V~450V

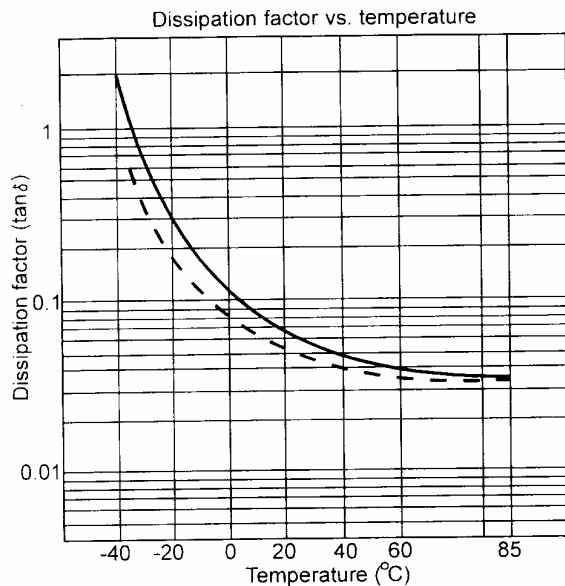
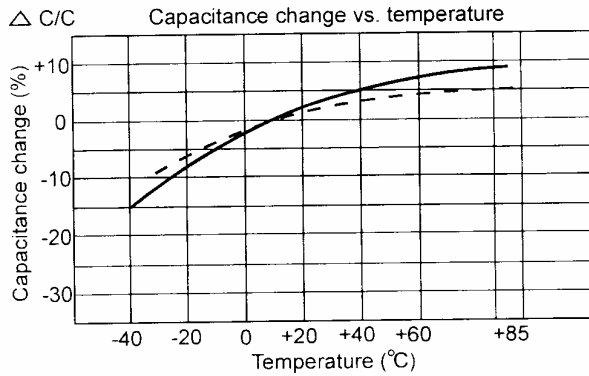
W.V.	200V			250V			350V			400V		
μF	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.	DxL	R.C.	E.S.R.
47										22x25	0.43	8.818
										25x25	0.45	8.818
100							22x30	0.66	4.145	22x30	0.68	4.145
							25x25	0.63	4.145	25x25	0.65	4.145
150							22x35	0.86	2.763	22x40	0.95	2.763
							30x25	0.82	2.763	30x25	0.85	2.763
220	22x25	0.97	1.507	22x30	1.14	1.507	22x45	1.17	1.884	22x50	1.27	1.884
	25x25	1.00	1.507	25x25	1.09	1.507	30x30	1.06	1.884	30x35	1.17	1.884
330	22x30	1.29	1.005	22x40	1.58	1.005	25x50	1.53	1.256	30x45	1.59	1.256
	25x25	1.23	1.005	30x25	1.42	1.005	35x35	1.60	1.256	35x35	1.65	1.256
470	22x40	1.74	0.705	22x50	2.09	0.705	30x50	1.92	0.882	35x45	2.19	0.882
	30x25	1.55	0.705	30x35	1.93	0.705	35x40	2.01	0.882			
560	22x45	2.00	0.592	25x45	2.29	0.592	35x45	2.31	0.740			
	30x30	1.82	0.592	35x30	2.22	0.592						
680	25x40	2.14	0.488	30x40	2.45	0.488						
	30x35	2.14	0.488	35x35	2.68	0.488						
820	25x50	2.59	0.404	30x45	2.83	0.404						
	35x30	2.55	0.404	35x40	3.11	0.404						
1000	30x45	2.87	0.332	35x45	3.60	0.332						
	35x35	2.99	0.332									
1500	35x50	4.24	0.221									

WV	450V		
μF	DxL	R.C.	E.S.R.
47	22x25	0.36	8.818
	25x25	0.37	8.818
100	22x35	0.61	4.145
	25x30	0.59	4.145
150	22x50	0.88	2.763
	30x30	0.76	2.763
220	25x50	1.06	1.884
	35x35	1.13	1.884
330	35x45	1.53	1.256

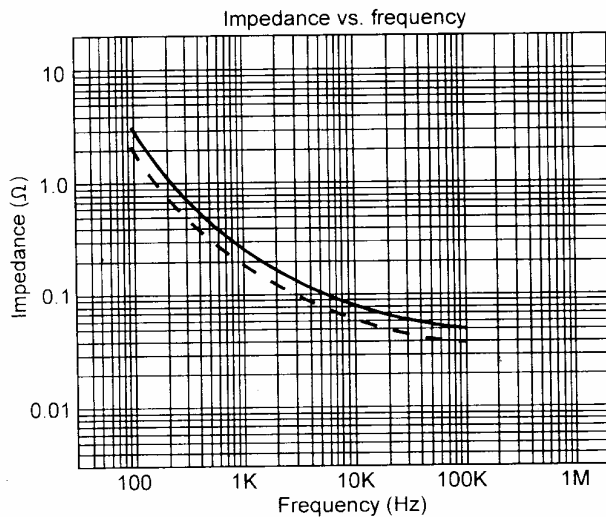
TYPE LP, LS

TYPICAL CHARACTERISTIC CURVES

⊙ TEMPERATURE CHARACTERISTICS



⊙ FREQUENCY CHARACTERISTICS



--- 4700 μF 50V

— 470 μF 200V

⊙ LOAD LIFE TEST (at +85 °C)

