

LARGE CAN TYPE

LS Series

Snap-in Terminal Type, Miniature Sized

- Smaller case sized than LP series.
- Withstanding 2000 hours application of high ripple current at 85°C.

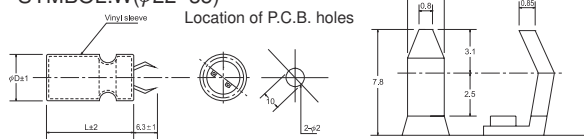


SPECIFICATION

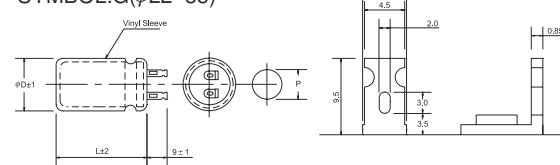
Item	Characteristic																				
Operation Temperature Range	-40 ~ +85°C																				
Rated Working Voltage	16 ~ 500VDC																				
Capacitance Tolerance (120Hz 20°C)	±20%(M)																				
Leakage Current (20°C)	$I \leq 0.02CV$ or 3 (mA) *Whichever is smaller after 5 minutes I : Leakage Current (μA) C : Rated Capacitance (μF) V : Working Voltage (V)																				
Surge Voltage (20°C)	W.V.	16	25	35	50	63	80	100	160	180	200	250	350	350	400	450	500				
	S.V.	20	32	44	63	79	100	125	200	225	250	300	400	400	450	500	550				
Dissipation Factor (tan δ) (120Hz 20°C)	Rated Voltage (V)	16			25			35			50			63			80		100		≥160
	Capacitance	≤47,000	≥56,000	≤33,000	≥47,000	≤22,000	≥33,000	≤6,800	≥10,000	≤6,800	≥10,000	≤2,200	≥3,300	≤3,300	≥4,700	—					
	tan δ	0.50	0.60	0.40	0.50	0.35	0.40	0.30	0.35	0.25	0.35	0.20	0.25	0.20	0.25	0.20	0.25	0.15			
Low Temperature Stability	Impedance ratio at 120Hz																				
	Rated Voltage (V)	16~100					160~250					350~500									
	-25°C / +20°C	4					6					8									
	-40°C / +20°C	15					—					—									
Load Life	After 2000 hours application of W.V. at +85°C the capacitor shall meet the following limits.																				
	Capacitance Change	≤ ±15% of initial value																			
	Dissipation Factor	≤175% of initial specified value																			
	Leakage current	≤initial specified value																			
Shelf Life	At +85°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)																				

TERMINAL TYPE

▲ P.C.B. TERMINAL (SNAP IN) SYMBOL:W(φ22~35)

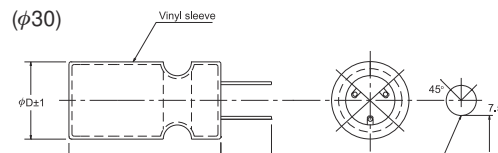
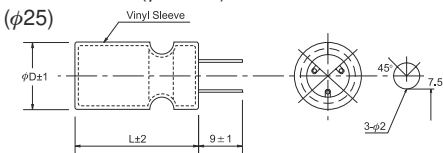


▲ LUG TERMINAL SYMBOL:G(φ22~35)

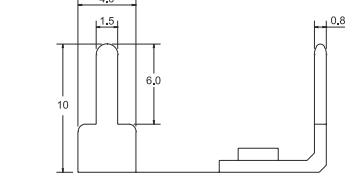
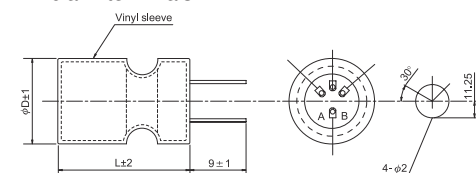


φD	22	25	30	35
P	8	10	10	14

▲ P.C.B. TERMINAL SYMBOL:V(φ25~35)



▲ P.C.B. TERMINAL SYMBOL:A(φ25~35)



RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	40	60	70	85
Multiplier	1.80	1.40	1.20	1.00

Frequency(Hz)	60	120	400	1k	10k
W.V.	Multiplier				
≤100V	0.80	1.00	1.10	1.20	1.20
≥160V	0.80	1.00	1.10	1.30	1.40

※ For φ45 dimension, refer to page 14.

Case size : D x L (mm)
 Max ripple current : A (rms)
 (R.C.) : 85°C 120Hz

● CASE SIZE & MAX RIPPLE CURRENT

V(Code)		16 (1C)					25 (1E)					35 (1V)					
μF	Code	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	
3300	332											25					
												2.04					
4700	472						25					30	25				
							2.25					2.41	2.23				
6800	682	25					30	25				35	30	25			
		2.40					2.69	2.56				2.82	2.70	2.66			
10000	103	30	25				35	30	25			45	35	30	25		
		2.81	2.67				3.09	2.97	2.92			3.34	3.06	3.04	3.28		
15000	153	40	30	25			45	35	30	25			50	35	30		
		3.43	3.11	3.07			3.70	3.39	3.37	3.63			4.06	3.67	3.98		
22000	223		45	30	25			45	35	30				45	40		
			4.25	3.78	4.09			4.48	4.25	4.61				4.94	5.41		
33000	333			45	35				50	40					50		
				5.48	5.67				6.05	6.33					7.27		
56000	563																55
																	10.27
68000	683										55						60
											11.47						11.73
82000	823					50					60						
						10.83					13.06						
100000	104					60											L(mm)
						12.90											R.C.

V(Code)		50 (1H)					63 (1J)					80 (1K)					100 (2A)				
μF	Code	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
1000	102											25					30	25			
												1.50					1.71	1.63			
1200	122																35	30			
																	2.01	1.93			
1500	152						25					30	25				35	30	25		
							1.66					1.88	1.79				2.11	2.03	2.00		
1800	182																45	35	30		
																	2.59	2.37	2.35		
2200	222	25					30	25				40	30	25			50	40	30	25	
		1.92					2.08	1.98				2.45	2.22	2.19			2.84	2.64	2.47	2.66	
3300	332	30	25				35	30	25			50	40	30	25			50	40	30	
		2.35	2.24				2.51	2.41	2.38			3.05	2.83	2.65	2.86			3.25	3.11	3.19	
4700	472	35	30	25			45	35	30	25			50	40	30				50	40	
		2.72	2.62	2.58			3.04	2.79	2.77	2.99			3.36	3.21	3.30				3.65	3.82	
6800	682	50	40	30	25			50	35	30				50	40					50	
		3.45	3.20	3.00	3.23			3.53	3.19	3.46				3.80	3.98					4.48	
10000	103		50	35	30				45	40											
			3.70	3.35	3.64				3.72	4.08											
12000	123																				60
																					5.83
15000	153		50	40						50						55					70
			4.61	4.83						5.30					6.29						6.96
18000	183			45																	
				5.55																	
22000	223		50								55					65					
			6.42								6.95					8.17					
27000	273										65										
											8.26										
33000	333					55															
						8.51															
39000	393					65															L(mm)
						9.26															R.C.

● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
 Max ripple current : A (rms)
 (R.C.) : 85°C 120Hz

μF	V(Code) Code	φD	160 (2C)					180 (2M)					200 (2D)					250 (2E)								
			22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45				
220	221												25					25								
													1.25					1.31								
270	271												25					30	25							
													1.67					1.57	1.57							
330	331							25					30	25				35	30							
								1.31					1.66	1.66				1.85	1.87							
390	391		25					30	25				30	25				35	30	25						
			1.44					1.54	1.54				1.80	1.80				2.01	2.03	2.10						
470	471		30	25				30	25				35	30	25			40	35	25	25					
			1.70	1.70				1.69	1.69				2.11	2.13	2.21			2.34	2.38	2.31	2.54					
560	561		35	30				35	30	25			40	35	25			50	40	30	25					
			1.99	2.23				1.97	1.99	2.06			2.44	2.48	2.41			2.82	2.74	2.71	2.78					
680	681		40	30	25			40	35	25			45	35	30	25			45	35	30					
			2.32	2.21	2.29			2.30	2.34	2.27			2.83	2.73	2.85	2.92			3.19	3.18	3.28					
820	821		45	35	30			45	40	30	25			40	30	25			50	40	30					
			2.68	2.58	2.70			2.67	2.72	2.68	2.75			3.17	3.13	3.21			3.67	3.69	3.60					
1000	102		50	40	30	25			45	35	25			50	35	30					45	35				
			3.11	3.02	2.98	3.05			3.16	3.15	3.04			3.87	3.68	3.80					4.28	4.22				
1200	122			45	35	30			50	40	30				40	35					50	40				
				3.49	3.48	3.59			3.63	3.65	3.56				4.26	4.42					4.91	4.88				
1500	152				40	35				45	35					40						50				
					4.11	4.26				4.15	4.09					5.02						5.74				
1800	182				45	35					40					50										
					4.73	4.67					4.73					6.04										
2200	222																									50
																										5.81
2700	272																									60
																										6.94
3300	332																									60
																										7.68
3900	392																									60
																										7.55
4700	472																									60
																										8.29
																									L(mm)	
																									R.C.	

● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
 Max ripple current : A (rms)
 (R.C.) : 85°C 120Hz

μF	V(Code) Code	φD	350 (2V)					400 (2G)					450 (2W)					500 (2H)									
			22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45					
82	820							25					30	25				35	30	25			35	30	25		
								0.76					0.83	0.83				0.73	0.74	0.76							
100	101		25					30	25				35	30	25			40	30	25			40	30	25		
			0.73					0.91	0.91				0.97	0.98	1.02			0.85	0.81	0.84							
120	121		30	25				30	25				40	30	25			45	35	30			45	35	30		
			0.86	0.86				1.00	1.00				1.13	1.08	1.12			0.99	0.95	0.99							
150	151		30	25				35	30	25			45	35	30			50	40	35	30		50	40	35	30	
			0.96	0.96				1.19	1.20	1.25			1.33	1.28	1.34			1.15	1.12	1.18	1.22						
180	181		35	30	25			40	35	25			50	40	30	25							45	40	30		
			1.13	1.14	1.18			1.38	1.40	1.37			1.53	1.49	1.47	1.50							1.30	1.37	1.33		
220	221		40	35	25			50	40	30	25							45	35	30			50	45	35		
			1.32	1.34	1.30			1.69	1.64	1.62	1.66							1.73	1.72	1.78			1.50	1.59	1.57		
270	271		50	40	30	25			45	35	30							40	35								
			1.61	1.57	1.55	1.59			1.92	1.91	1.97							2.02	2.10								
330	331			45	35	30			50	40	30							45	35								
				1.82	1.82	1.88			2.22	2.23	2.18							2.35	2.32								
390	391			50	40	30				45	35												40				
				2.08	2.10	2.04				2.55	2.52							2.66									
470	471				40	35					40												45				
					2.30	2.38					2.92							3.07									
560	561				50	40					45																
					2.76	2.75					3.34																
680	681					45					50												50				
						3.18					3.85												3.70				
820	821											50											55				
												4.06											4.22				
1000	102						50					55															
							4.14					4.66															
1500	152						60																				L(mm)
							4.43																				R.C.