

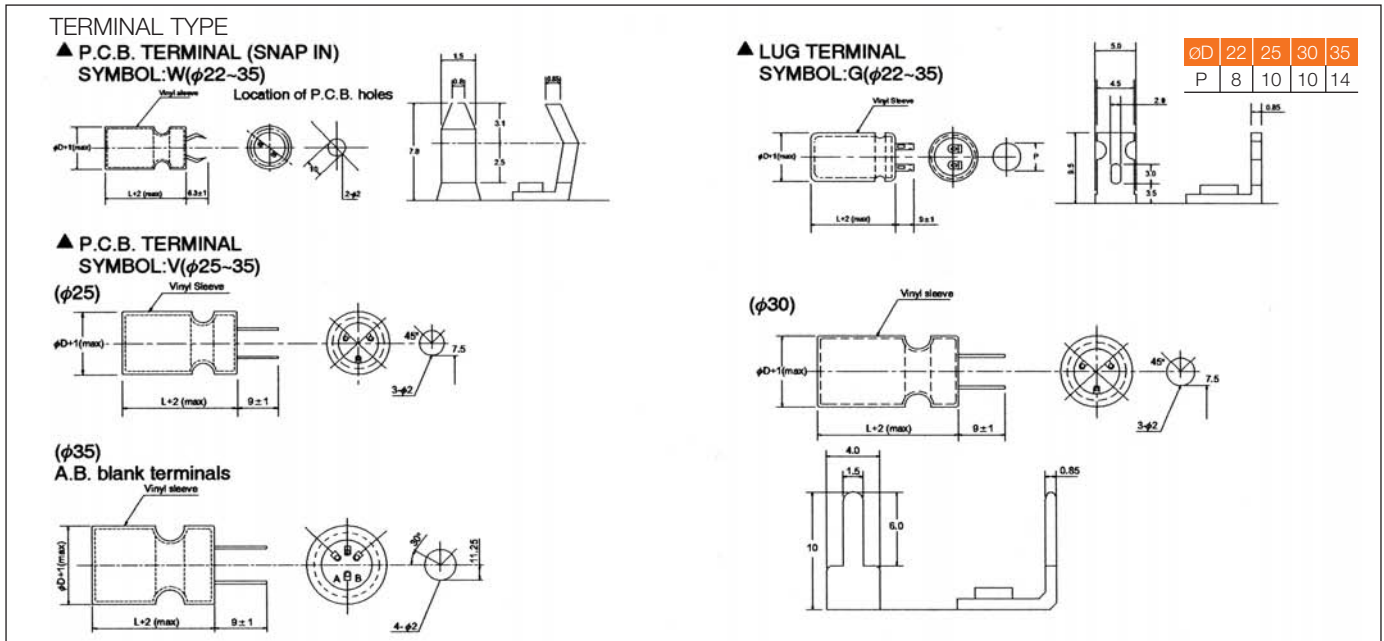
**LS SERIES**  
Snap-in Terminal Type,  
Miniature Sized



- Smaller case sized than LP series.
- Withstanding 2,000 hours application of high ripple current at 85 °C.

**SPECIFICATION**

Item	Characteristic																
Operation Temperature Range	-40 ~ +85 °C																
Rated Working Voltage	16 ~ 500 VDC																
Capacitance Tolerance (120 Hz 20 °C)	±20%(M)																
Leakage Current (20 °C)	I ≤ 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	400	450	500	
	S.V.	20	32	44	63	79	100	125	200	225	250	300	400	450	500	550	
Dissipation Factor (tan δ) (120 Hz 20 °C)	Rated Voltage (V)	16	25	35		50		63		80		100	≥ 160				
	Capacitance	-	-	≤ 22,000	≥ 33,000	≤ 6,800	≥ 10,000	≤ 6,800	≥ 10,000	≤ 2,200	≥ 3,300	≤ 3,300	≥ 4,700	-			
	tan δ	0.50	0.40	0.35	0.40	0.30	0.35	0.25	0.35	0.20	0.25	0.20	0.25	0.15			
Low Temperature Stability	Impedance ratio at 120 Hz																
	Rated Voltage (V)	16~100					160~250					350~500					
	-25 °C / +20 °C	4					6					8					
	-40 °C / +20 °C	15					-					-					
Load Life	After 2,000 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 1,000 hours, the capacitor shall meet the limits for load life characteristics (with voltage treatment)																



**RIPPLE CURRENT COEFFICIENTS**

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

## Case Size & Max Ripple Current

Case size: DxD mm  
Max ripple current: A(rms) 85 °C 120 Hz

		V (Code)											
		16 (1C)				25 (1E)				35 (1V)			
		øD				øD				øD			
µF	Code	22	25	30	35	22	25	30	35	22	25	30	35
3.300	332									25			
										2.04			
4.700	472					25				30	25		
						2.25				2.41	2.30		
6.800	682	25				30	25			35	30	25	
		2.40				2.69	2.56			2.82	2.70	2.66	
10.000	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
15.000	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
22.000	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
33.000	333			45	35			50	40			L (mm)	50
				5.48	5.67			6.05	6.33			R.C.	7.27

		V (Code)															
		50 (1H)				63 (1J)				80 (1K)				100 (2A)			
		øD				øD				øD				øD			
µF	Code	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
1.000	102									25				30	25		
										1.50				1.71	1.63		
1.200	122													35	30		
														2.01	1.93		
1.500	152					25				30	25			35	30	25	
						1.66				1.88	1.79			2.11	2.03	2.00	
1.800	182													45	35	30	
														2.59	2.37	2.35	
2.200	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
3.300	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
4.700	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
6.800	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
10.000	103		50	35	30			45	40								
			3.70	3.35	3.64			3.72	4.08								
15.000	153			50	40				50								
				4.61	4.83				5.30								
18.000	183				45												
					5.55												
22.000	223				50												L (mm)
					6.42												R.C.

Case Size & Max Ripple Current

Case size: DxL mm - Max ripple current: A(rms) 85 °C 120 Hz

		V (Code)															
		160 (2C)				180 (2M)				200 (2D)				250 (2E)			
		øD				øD				øD				øD			
µF	Code	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
220	221									25				25			
270	271									25				30	25		
330	331					25				30	25			35	30		
390	391	25				30	25			30	25			35	30	25	
470	471	30	25			30	25			35	30	25		40	35	25	25
560	561	35	30			35	30	25		40	35	25		50	40	30	25
680	681	40	30	25		40	35	25		45	35	30	25	45	35	30	
820	821	45	35	30		45	40	30	25	40	30	25		50	40	30	
1.000	102	50	40	30	25	45	35	25		50	35	30		45	35		
1.200	122	45	35	30		50	40	30		40	35			50	40		
1.500	152	40	35			45	35			40				50			
1.800	182	45	35			40				50							L (mm)
		4.73	4.67			4.73				6.04							R.C.

		V (Code)															
		350 (2V)				400 (2G)				450 (2W)				500 (2H)			
		øD				øD				øD				øD			
µF	Code	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
82	820					25				30	25			35	30	25	
100	101	25				30	25			35	30	25		40	30	25	
120	121	30	25			30	25			40	30	25		45	35	30	
150	151	30	25			35	30	25		45	35	30		50	40	35	30
180	181	35	30	25		40	35	25		50	40	30	25	45	40	30	
220	221	40	35	25		50	40	30	25	45	35	30		50	45	35	
270	271	50	40	30	25	45	35	30		40	35			50	45		
330	331	45	35	30		50	40	30		45	35						45
390	391	50	40	30		45	35			40							50
470	471	40	35			40				45							
560	561	50	40			45				45							
680	681	45	35			40				50							L (mm)
		3.18				3.85											R.C.