

- Withstanding 2000 hours application of high ripple current at 85°C.
- Corresponding product to RoHS

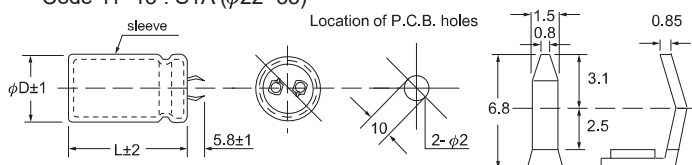


SPECIFICATION

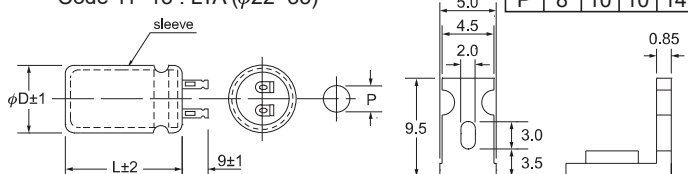
Item	Characteristic																
Operation Temperature Range	-40 ~ +85°C																
Rated Working Voltage	16 ~ 500VDC																
Capacitance Tolerance (120Hz 20°C)	±20%(M)																
Leakage Current (20°C)	I ≤0.02CV or 3 (mA) *Whichever is smaller after 5 minutes I : Leakage Current(μA) 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	
	tan δ	0.50		0.60		0.40		0.50		0.35		0.40		0.30		0.35	
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

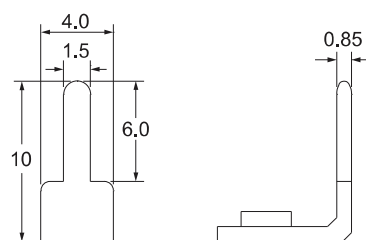
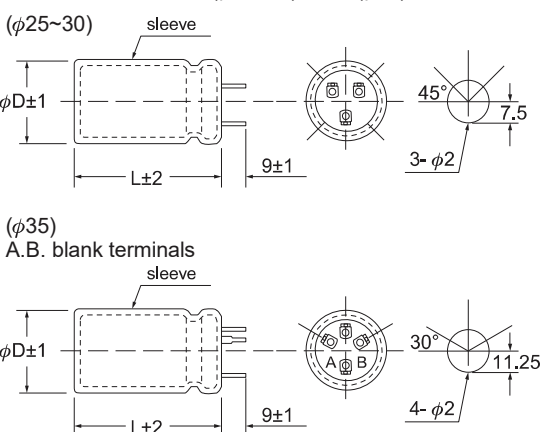
▲ P.C.B. TERMINAL (SNAP IN) Code 11~13 : S1A (φ22~35)



▲ LUG TERMINAL Code 11~13 : LTA (φ22~35)



▲ P.C.B. TERMINAL Code 11~13 : LBA (φ25~30), LCA (φ35)



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 16.

● CASE SIZE & MAX RIPPLE CURRENT

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

μF	V(DC) φD	16					25					35				
		22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
3300												25				
												2.04				
4700							25					30	25			
							2.25					2.41	2.23			
6800		25					30	25				35	30	25		
		2.40					2.69	2.56				2.82	2.70	2.66		
10000		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		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			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				45	35				50	40					50	
				5.48	5.67				6.05	6.33					7.27	
56000																55
																10.27
68000											55					60
											11.47					11.73
82000						50					60					
						10.83					13.06					
100000						60										L(mm)
						12.90										R.C.

μF	V(DC) φD	50					63					80					100				
		22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
1000												25					30	25			
												1.50					1.71	1.63			
1200																	35	30			
																	2.01	1.93			
1500							25					30	25				35	30	25		
							1.66					1.88	1.79				2.11	2.03	2.00		
1800																	45	35	30		
																	2.59	2.37	2.35		
2200		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		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		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		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			50	35	30				45	40											
			3.70	3.35	3.64				3.72	4.08											
12000																					60
																					5.83
15000				50	40					50						55					70
				4.61	4.83					5.30						6.29					6.96
18000					45																
					5.55																
22000					50						55					65					
					6.42						6.95					8.17					
27000											65										
											8.26										
33000						55															
						8.51															
39000						65															L(mm)
						9.26															R.C.

LARGE CAN TYPE

● CASE SIZE & MAX RIPPLE CURRENT

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

μF	$V(DC)$ ϕD	160					180					200					250				
		22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
220												25					25				
												1.25					1.31				
270												25					30	25			
												1.67					1.57	1.57			
330							25					30	25				35	30			
							1.31					1.66	1.66				1.85	1.87			
390	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	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	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	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	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	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		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			40	35					45	35					40					50	
			4.11	4.26					4.15	4.09					5.02					5.74	
1800			45	35						40					50						
			4.73	4.67						4.73					6.04						
2200																					50
																					5.81
2700																					60
																					6.94
3300											50										
											6.44										
3900						50					60										
						7.00					7.55										
4700						60															L(mm)
						8.29															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(DC) φD	350					400					450					500				
		22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
82							25					30	25				35	30	25		
							0.76					0.83	0.83				0.73	0.74	0.76		
100		25					30	25				35	30	25			40	30	25		
		0.73					0.91	0.91				0.97	0.98	1.02			0.85	0.81	0.84		
120		30	25				30	25				40	30	25			45	35	30		
		0.86	0.86				1.00	1.00				1.13	1.08	1.12			0.99	0.95	0.99		
150		30	25				35	30	25			45	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		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		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		50	40	30	25			45	35	30				40	35				50	45	
		1.61	1.57	1.55	1.59			1.92	1.91	1.97				2.02	2.10				1.84	1.92	
330			45	35	30			50	40	30				45	35					45	
			1.82	1.82	1.88			2.22	2.23	2.18				2.35	2.32					2.13	
390			50	40	30				45	35					40					50	
			2.08	2.10	2.04				2.55	2.52					2.66					2.42	
470				40	35					40					45						
				2.30	2.38					2.92					3.07						
560				50	40					45											
				2.76	2.75					3.34											
680					45					50						50					
					3.18					3.85						3.70					
820											50					55					
											4.06					4.22					
1000						50					55										
						4.14					4.66										
1500						60															L(mm)
						4.43															R.C.