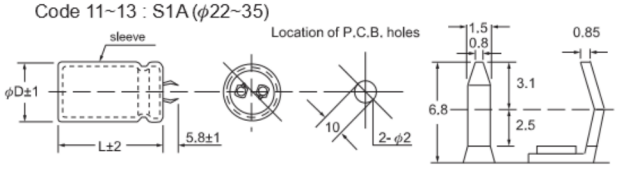
- Withstanding 2000 hours application of high ripple current at 105°C.
- Corresponding product to RoHS

SPECIFICATION

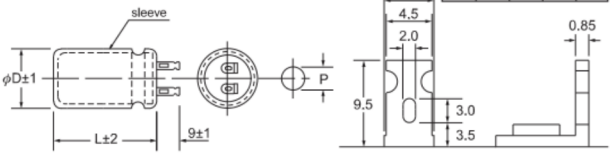
Item	Characteristic														
Operation Temperature Range	-40 ~ +105°C														
Rated Working Voltage	16 ~ 500VDC														
Capacitance Tolerance (120Hz 20°C)	±20%(M)														
Leakage Current (20°C)	I ≦0.02CV or 3 (mA) *Whichever is smaller after 5 minutes I : Leakage Current(μA) C : 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	400	450	500
	S.V.	20	32	44	63	79	100	125	200	225	250	300	400	450	500	550
Dissipation Factor (tan δ) (120Hz 20°C)	Rated Voltage (V)	16		25		35		50		63		80		100		≧160
	Capacitance	≦33,000	≧47,000	≦33,000	≧47,000	≦22,000	≧27,000	≦6,800	≧10,000	≦6,800	≧10,000	≦3,300	≧4,700	≦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	0.15
Low Temperature Stability	Impedance ratio at 120Hz															
	Rated Voltage (V)	16		25		35		50		63~100		160~250		350~500		
	-25°C / +20°C	6		6		6		4		3		4		6		
	-40°C / +20°C	15		15		10		8		6		—		—		
Load Life	After 2000 hours application of W.V. at +105°C the capacitor shall meet the following limits.															
	Capacitance Change	≦±20% of initial value														
	Dissipation Factor	≦175% of initial specified value														
	Leakage current	≦initial specified value														
Shelf Life	At +105°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)



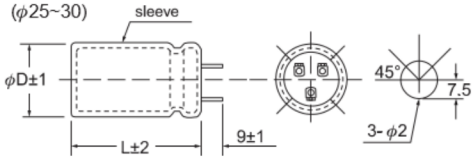
▲ LUG TERMINAL
Code 11~13 : LTA (φ22~35)



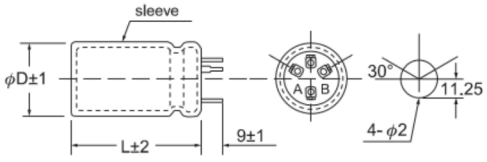
φD	22	25	30	35
P	8	10	10	14

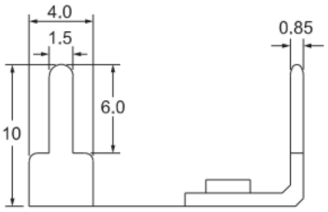
▲ P.C.B. TERMINAL
Code 11~13 : LBA (φ25~30), LCA (φ35)

(φ25~30)



(φ35)
A.B. blank terminals





※ For φ45 dimension, refer to page 16.

RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	40	60	70	85	105
Multiplier	2.50	2.20	2.00	1.80	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 : D x L (mm)
Max ripple current : A (rms)
(R.C.) : 105°C 120Hz

V(DC) / μF \ φD	16					25					35					50				
	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
1500																25				
																1.05				
2200											25					30	25			
											1.17					1.31	1.25			
3300						25					30	25				35	30	25		
						1.34					1.43	1.36				1.58	1.52	1.50		
4700	25					30	25				35	30	25			45	35	30	25	
	1.36					1.58	1.51				1.65	1.58	1.56			1.90	1.74	1.73	1.86	
6800	35	30				35	30	25			50	40	30	25			50	35	30	
	1.74	1.67				1.85	1.78	1.75			2.09	1.94	1.82	1.96			2.19	1.98	2.15	
10000	45	35	25			45	35	30	25			50	35	30				45	40	
	2.09	1.92	1.77			2.19	2.01	2.00	2.15			2.24	2.03	2.20				2.39	2.62	
15000		45	35	30			45	35	30				50	40					50	
		2.29	2.17	2.36			2.54	2.41	2.61				2.79	2.92					3.52	
22000			45	35				45	40											55
			2.86	2.97				3.24	3.55											4.62
27000															50					65
															4.49					5.49
33000				50					50						55					
				4.21					4.78						5.16					
47000					50					50										
					5.24					5.24										
56000					55					60										L(mm)
					5.65					6.17										R.C.

V(DC) / μF \ φD	63					80					100					160				
	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
330																25				
																0.88				
390																30	25			
																1.03	1.03			
470																30	25			
																1.14	1.13			
560																35	30	25		
																1.32	1.33	1.38		
680																40	35	25		
																1.55	1.57	1.53		
820																45	40	30	25	
																1.79	1.82	1.80	1.84	
1000	25					30	25				30	25					45	35	25	
	0.91					1.04	0.99				1.11	1.06					2.12	2.12	2.04	
1200																	50	35	30	
																	2.43	2.32	2.39	
1500	30	25				35	30	25			40	35	25					45	35	
	1.14	1.08				1.28	1.23	1.21			1.44	1.39	1.29					2.88	2.84	
1800																			40	
																			3.28	
2200	35	30	25			50	40	30	25			45	35							
	1.40	1.35	1.33			1.72	1.60	1.50	1.61			1.77	1.68							
3300	45	40	30	25			50	40	30				45	35						50
	1.77	1.72	1.61	1.73			1.97	1.78	1.93				2.07	2.15						4.52
3900																				55
																				5.11
4700		50	35	30				50	40					45						
		2.03	1.84	2.00				2.11	2.31					2.52						
6800			45	40					50											
			2.20	2.41					2.72											
8200															60					
															3.27					
10000				50											65					
				2.87											3.73					
12000										60										
										3.95										
15000					60					65										
					3.95					4.57										
18000					65															L(mm)
					4.48															R.C.

LARGE CAN TYPE

CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
Max ripple current : A (rms)
(R.C.) : 105°C 120Hz

V(DC) / μF \ φD	180					200					250				
	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
220						25					30	25			
						0.85					0.91	0.91			
270	25					25					35	25			
	0.80					0.94					1.07	1.01			
330	30	25				30	25				35	30	25		
	0.95	0.95				1.12	1.12				1.19	1.20	1.24		
390	30	25				35	25				40	35	25		
	1.03	1.04				1.31	1.22				1.37	1.39	1.35		
470	35	30	25			40	30	25			50	40	30	25	
	1.21	1.22	1.27			1.52	1.45	1.50			1.66	1.61	1.59	1.63	
560	40	30	25			45	35	30				45	35	25	
	1.40	1.34	1.39			1.75	1.68	1.76				1.85	1.85	1.78	
680	45	35	30	25		50	40	30	25			50	35	30	
	1.63	1.57	1.64	1.68		2.02	1.96	1.94	1.98			2.14	2.04	2.10	
820	50	40	30	25			45	35	30				45	35	
	1.88	1.83	1.80	1.85			2.27	2.26	2.33				2.49	2.45	
1000		45	35	30			50	40	30					40	
		2.12	2.12	2.18			2.63	2.64	2.58					2.86	
1200			40	30				45	35					45	
			2.45	2.39				3.04	3.00					3.29	
1500			50	35					45					50	
			2.91	2.74					3.58					3.68	
1800				40					50						
				3.17					4.10						
2200															55
															4.29
2700										50					65
										4.43					5.10
3300					55					60					
					4.70					5.28					
3900					65										L(mm)
					5.48										R.C.