

- Same case sized as HS series.
- Withstanding 3000 hours application of high ripple current at 105°C
- Corresponding product to RoHS.

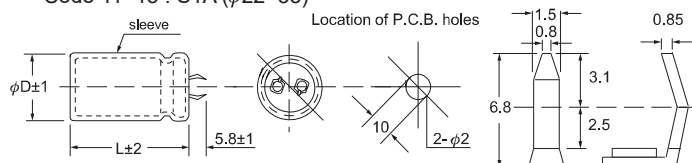


SPECIFICATION

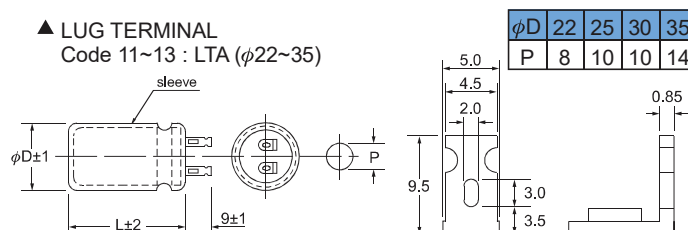
Item	Characteristic															
Operation Temperature Range	-40 ~ +105°C															
Rated Working Voltage	16 ~ 450VDC															
Capacitance Tolerance (120Hz 20°C)	±20%(M)															
Leakage Current (20°C)	I ≤0.02CV or 3 (mA) *Whichever is smaller after 5 minutes I : Leakage Current(μA) 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	
	S.V.	20	32	44	63	79	100	125	200	225	250	300	400	450	500	
Dissipation Factor (tan δ) (120Hz 20°C)	Rated Voltage (V)			16	25	35	50		63		80		100		≥160	
	Capacitance			—	—	—	≤6,800	≥10,000	≤6,800	≥10,000	≤3,300	≥4,700	≤3,300	≥4,700	—	
	tan δ			0.50	0.40	0.35	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		350~450
	-25°C / +20°C			6		6		6		4		3		4		6
	-40°C / +20°C			15		15		10		8		6		—		—
Load Life	After 3000 hours application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)															
	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

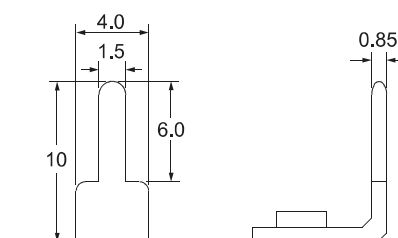
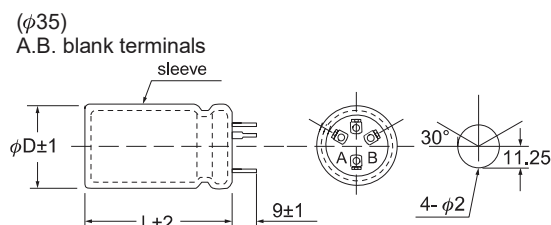
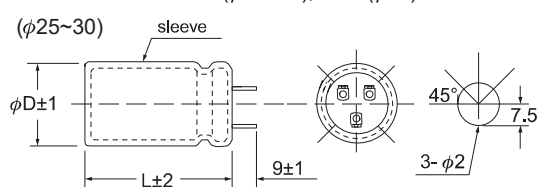
▲ P.C.B. TERMINAL (SNAP IN) Code 11~13 : S1A (φ22~35)



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



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



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) 105°C 120Hz

μF	V(DC) φD	16				25				35				50			
		22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
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								
			2.86	2.97				3.24	3.55								
33000				50					50								L(mm)
				4.21					4.78								R.C.

μF	V(DC) φD	63				80				100				160			
		22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
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				
	1.77	1.72	1.61	1.73			1.97	1.78	1.93			2.07	2.15				
4700		50	35	30				50	40				45				
		2.03	1.84	2.00				2.11	2.32				2.52				
6800			45	40					50								
			2.20	2.41					2.72								
10000				50													L(mm)
				2.87													R.C.

● CASE SIZE & MAX RIPPLE CURRENT

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

μF	V(DC) φD	180				200				250			
		22	25	30	35	22	25	30	35	22	25	30	35
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		45	40	30	25		50	35	30
	1.63	1.57	1.64	1.68		1.92	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					L(mm)
				3.17				4.10					R.C.

μF	V(DC) φD	350				400				450			
		22	25	30	35	22	25	30	35	22	25	30	35
47										25			
										0.39			
68						25				30	25		
						0.47				0.50	0.50		
82	25					30	25			35	30		
	0.43					0.56	0.56			0.59	0.60		
100	30	25				30	25			40	35	25	
	0.51	0.51				0.61	0.61			0.69	0.70	0.68	
120	30	25				35	30	25		45	35	30	25
	0.55	0.55				0.72	0.73	0.75		0.80	0.77	0.80	0.82
150	35	30	25			40	35	30			45	35	30
	0.66	0.67	0.69			0.85	0.86	0.90			0.96	0.96	0.99
180	40	35	30			45	40	30	25		50	35	30
	0.77	0.78	0.82			0.98	1.00	0.99	1.01		1.10	1.05	1.08
220	50	40	30	25		45	35	30				40	35
	0.94	0.91	0.90	0.92		1.17	1.16	1.20				1.22	1.27
270		45	35	30		50	40	30				50	40
		1.07	1.06	1.10		1.35	1.36	1.33				1.49	1.48
330		50	40	30			45	35					45
		1.23	1.24	1.21			1.58	1.56					1.72
390			45	35				40					50
			1.42	1.40				1.79					1.96
470				40				45					
				1.62				2.07					
560				45				50					L(mm)
				1.86				2.36					R.C.

LARGE CAN TYPE