

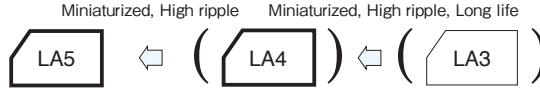
PCB Snap-In Miniaturized Capacitors

GREEN CAP

- 20mm-tall products for every diameter of $\phi 22$ to $\phi 35$ are now offered in series.
- As many as 4 case sizes available for the same rating.



Marking color : White print on a black sleeve

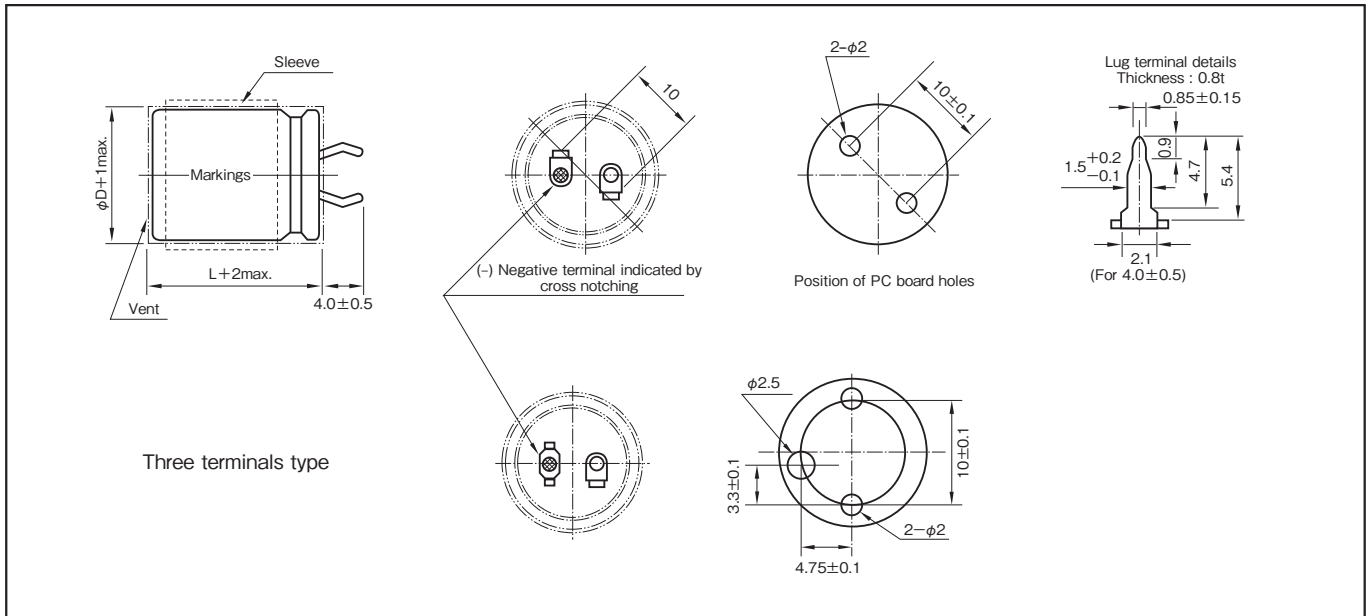


Specifications

Item	Performance							
Category temperature range (°C)	-40 to +85 (450V is at -25 to +85)							
Tolerance at rated capacitance (%)	±20 (20°C, 120Hz)							
Leakage current (µA)	Less than $3\sqrt{CV}$ (after 5 minutes) C : Rated capacitance (µF) ; V : Rated voltage (V) (20°C)							
Tangent of loss angle (tanδ)	Rated voltage (V)		10	16	25	35	50	63 to 100
	tanδ (max.)		0.80	0.60	0.50	0.40	0.30	0.20
	tanδ (max.)	Rated voltage (V)		160 to 250	315 to 450			
φD (mm)		22 to 30	0.10	0.15				
		35	0.15	0.15				
Characteristics at high and low temperature	Rated voltage (V)		10	16 to 35	50 to 100	160 to 200	250 to 400	450
	Impedance ratio (max.)	Z-25°C/Z+20°C	5	4	3	3	4	4
Z-40°C/Z+20°C		18	15	10	6	8	—	
Endurance (85°C) (Applied ripple current)	Test time		2000 hours					
	Leakage current		The initial specified value or less					
	Percentage of capacitance change		Within ±20% of initial value					
	Tangent of the loss angle		200% or less of the initial specified value					
Shelf life (85°C)	Test time		1000 hours					
	Leakage current		The initial specified value or less					
	Percentage of capacitance change		Within ±15% of initial value					
	Tangent of the loss angle		150% or less of the initial specified value					
Voltage application treatment								
Applicable standards	JIS C5101-1, -4 1998 (IEC 60384-1 1992, -4 1985)							

Outline Drawing

Unit : mm



Part numbering system					
series LA5, standard terminal type :400V330µF					
LA5	400	V	331	M	S43 # B
Series code	Rated voltage symbol	Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	Optional symbol
series LT5, three terminals type :400V330µF					
LT5	—	400	V	331	M S43 # B
Series code	Rated voltage symbol	Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	Optional symbol

Coefficient of Frequency for Rated Ripple Current

Rated voltage (V)	Frequency (Hz)				
	50	120	1k	10k	20k
100 or less	0.95	1	1.10	1.15	1.15
160 to 250	0.81	1	1.32	1.45	1.50
315 or more	0.77	1	1.30	1.41	1.43

NOTE : Design, Specifications are subject to change without notice. It is recommended that you shall obtain technical specifications from ELNA to ensure that the component is suitable for your use.

Standard Ratings

Table with columns for Rated voltage (V), Case φDxL (mm), Item, Casing Symbol, and various electrical ratings (Rated capacitance, ESR, Rated ripple current) for different capacitor sizes and voltages (10V, 16V, 25V, 35V, 50V, 63V, 80V, 100V).

(Note) Rated ripple current : 85°C, 120Hz ; ESR : 20°C, 120Hz

• The standard ratings follow the next page.

NOTE : Design, Specifications are subject to change without notice. It is recommended that you shall obtain technical specifications from ELNA to ensure that the component is suitable for your use.

Standard Ratings

Case φD×L (mm)	Item Casing Symbol	160			180			200			250			315			350			400			450					
		Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current	Rated capacitance	ESR	Rated ripple current			
		(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)	(μF)	(Ω)	(Arms)			
22×20	S21	270	0.614	1.49	220	0.753	1.34	220	0.753	1.34	150	1.105	1.10	100	2.488	0.90	82	3.034	0.81	82	3.034	0.90	68	3.658	0.82			
		330	0.502	1.65	270	0.614	1.49	270	0.614	1.49	180	0.921	1.21	120	2.073	0.99	100	2.488	0.90	100	2.488	0.99	82	3.034	0.90			
		390	0.425	1.79	330	0.502	1.64	330	0.502	1.64	220	0.753	1.34	150	1.658	1.11	120	2.073	0.99	120	2.073	1.09	100	2.488	0.99			
22×25	S22	390	0.425	1.93	330	0.502	1.77	330	0.502	1.77	220	0.753	1.44	150	1.658	1.20	120	2.073	1.07	100	2.488	1.07	82	3.034	0.97			
		470	0.352	2.12	390	0.425	1.92	390	0.425	1.92	270	0.614	1.60	180	1.382	1.31	150	1.658	1.20	120	2.073	1.17	100	2.488	1.07			
		560	0.296	2.31	470	0.352	2.11	470	0.352	2.11	330	0.502	1.77	220	1.130	1.45	180	1.382	1.31	150	1.658	1.31	120	2.073	1.17			
22×30	S23	560	0.296	2.43	470	0.352	2.23	470	0.352	2.23	330	0.502	1.87	180	1.382	1.38	150	1.658	1.26	150	1.658	1.39	120	2.073	1.23			
		680	0.243	2.68	560	0.296	2.43	560	0.296	2.43	390	0.425	2.03	220	1.130	1.53	180	1.382	1.37	180	1.382	1.52	150	1.658	1.38			
		820	0.202	2.94	680	0.243	2.68	680	0.243	2.68	470	0.352	2.23	270	0.921	1.69	220	1.130	1.52	220	1.130	1.68	180	1.382	1.52			
22×35	S24	680	0.243	2.70	560	0.296	2.45	560	0.296	2.45	390	0.425	2.04	270	0.921	1.70	220	1.130	1.53	180	1.382	1.53	150	1.658	1.42			
		820	0.202	2.96	680	0.243	2.70	680	0.243	2.69	470	0.352	2.24	330	0.753	1.88	270	0.921	1.70	220	1.130	1.69	180	1.382	1.56			
		1000	0.165	3.27	820	0.202	2.96	820	0.202	2.96	560	0.296	2.44	390	0.637	2.04	—	—	—	270	0.921	1.87	220	1.130	1.72			
22×40	S25	1000	0.165	3.43	820	0.202	3.11	820	0.202	3.11	560	0.296	2.57	330	0.753	1.97	270	0.921	1.78	270	0.921	1.96	220	1.130	1.77			
		1200	0.138	3.76	—	—	—	—	—	—	1000	0.165	3.43	680	0.243	2.83	390	0.637	2.14	330	0.753	1.97	330	0.753	2.17	270	0.921	1.96
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22×45	S26	1200	0.138	3.96	1000	0.165	3.61	1000	0.165	3.61	680	0.243	2.98	470	0.529	2.48	390	0.637	2.26	270	0.921	2.06	270	0.921	2.07			
		—	—	—	1200	0.138	3.96	—	—	—	—	—	—	820	0.202	3.27	560	0.444	2.70	—	—	—	330	0.753	2.28	—	—	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	390	0.637	2.48	—	—	
22×50	S27	1500	0.110	4.60	1200	0.138	4.11	1200	0.138	4.11	820	0.202	3.40	560	0.444	2.81	330	0.753	2.15	390	0.637	2.58	330	0.753	2.37			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
25×20	S31	390	0.425	1.76	330	0.502	1.62	270	0.614	1.47	180	0.921	1.20	150	1.658	1.10	120	2.073	0.97	100	2.488	0.99	82	3.034	0.89			
		470	0.352	1.93	390	0.425	1.76	330	0.502	1.62	220	0.753	1.33	180	1.382	1.20	150	1.658	1.09	120	2.073	1.08	100	2.488	0.98			
		560	0.296	2.11	470	0.352	1.93	390	0.425	1.76	270	0.614	1.47	220	1.130	1.32	180	1.382	1.20	150	1.658	1.20	120	2.073	1.08			
25×25	S32	560	0.296	2.43	470	0.352	2.23	390	0.425	2.03	330	0.502	1.87	180	1.382	1.38	180	1.382	1.38	150	1.658	1.39	120	2.073	1.24			
		680	0.243	2.68	560	0.296	2.43	470	0.352	2.23	390	0.425	2.03	220	1.130	1.53	220	1.130	1.53	180	1.382	1.52	150	1.658	1.39			
		820	0.202	2.95	680	0.243	2.68	560	0.296	2.43	470	0.352	2.23	270	0.921	1.69	220	1.130	1.69	220	1.130	1.68	180	1.382	1.52			
25×30	S33	680	0.243	2.70	560	0.296	2.45	560	0.296	2.45	390	0.425	2.04	270	0.921	1.70	220	1.130	1.54	180	1.382	1.53	150	1.658	1.40			
		820	0.202	2.96	680	0.243	2.70	680	0.243	2.70	470	0.352	2.24	330	0.753	1.88	270	0.921	1.70	220	1.130	1.69	180	1.382	1.53			
		1000	0.165	3.27	820	0.202	2.96	820	0.202	2.96	560	0.296	2.44	390	0.637	2.04	330	0.753	1.88	270	0.921	1.87	220	1.130	1.69			
25×35	S34	1000	0.165	3.47	820	0.202	3.14	680	0.243	2.86	560	0.296	2.60	330	0.753	1.96	330	0.753	2.00	270	0.921	1.98	220	1.130	1.79			
		1200	0.138	3.80	1000	0.165	3.47	820	0.202	3.14	680	0.243	2.86	390	0.637	2.14	390	0.637	2.17	330	0.753	2.19	270	0.921	1.98			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
25×40	S35	1500	0.110	4.41	1000	0.165	3.60	1000	0.165	3.60	680	0.243	2.97	470	0.529	2.46	390	0.637	2.25	330	0.753	2.27	270	0.921	2.05			
		—	—	—	1200	0.138	3.94	1200	0.138	3.94	820	0.202	3.26	560	0.444	2.69	470	0.529	2.47	390	0.637	2.47	330	0.753	2.27			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
25×45	S36	1200	0.138	4.13	1200	0.138	4.13	1200	0.138	4.13	820	0.202	3.42	680	0.365	3.11	470	0.529	2.58	390	0.637	2.59	330	0.753	2.38			
		1800	0.092	5.06	1500	0.110	4.62	1500	0.110	4.62	1000	0.165	3.77	—	—	—	—	—	—	560	0.444	2.82	470	0.529	2.84	390	0.637	2.59
		—	—	—	1500	0.110	4.80	1500	0.110	4.80	1500	0.110	4.80	1000	0.165	3.92	560	0.444	2.93	560	0.444	2.93	470	0.529	2.96	390	0.637	2.69
25×50	S37	1800	0.092	5.26	1800	0.092	5.26	—	—	—	—	—	—	1200	0.138	4.29	680	0.365	3.23	680	0.365	3.23	560	0.444	3.23	—	—	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
30×20	S41	560	0.296	2.11	470	0.352	1.94	470	0.352	1.94	330	0.502	1.63	220	1.130	1.33	180	1.382	1.20	150	1.658	1.21	100	2.488	0.98			
		680	0.243	2.33	560	0.296	2.12	560	0.296	2.11	390	0.425	1.77	270	0.921	1.47	220	1.130	1.33	180	1.382	1.32	120	2.073	1.07			
		820	0.202	2.56	680	0.243	2.33	680	0.243	2.33	470	0.352	1.94	330	0.753	1.62	270	0.921	1.47	220	1.130	1.46	150	1.658	1.20			
30×25	S42	820	0.202	3.13	680	0.243	2.86	680	0.243	2.86	470	0.352	2.37	330	0.753	1.99	270	0.921	1.80	220	1.130	1.79	150	1.658	1.48			
		1000	0.165	3.46	820	0.202	3.14	820	0.202	3.14	560	0.296	2.59	390	0.637	2.16	330	0.753	1.99	270	0.921	1.98	180	1.382	1.62			
		1200	0.138	3.79	1000	0.165	3.46	1000	0.165	3.46	680	0.243	2.86	470	0.529	2.37	390	0.637	2.16	330	0.753	2.19	220	1.130	1.79			
30×30	S43	1000	0.165	3.54	820	0.202	3.20	820	0.202	3.20	560	0.296	2.64	390	0.637	2.20	330	0.753	2.03	270	0.921	2.02	220	1.130	1.82			
		1200	0.138	3.87	1000	0.165	3.53	1000	0.165	3.53	680	0.243	2.91	470	0.529	2.42	390	0.637	2.20	330	0.753	2.24	270	0.921	2.02			
		1500	0.110	4.33	1200	0.138	3.87	1200	0.138	3.87	820	0.202	3.20	560	0.444	2.64	470	0.529	2.42	390	0.637	2.43	330	0.753	2.23			
30×35	S44	1500	0.110	4.52	1200	0.138	4.04	1200	0.138	4.04	820	0.202	3.34	560	0.444													