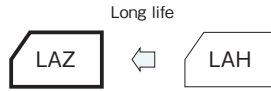


High-Reliability, High-Ripple, Long Life Capacitors

GREEN CAP 105°C 3000hours

- High-reliability, high-ripple, long life capacitors.
- Guarantees 3000 hours at 105°C.



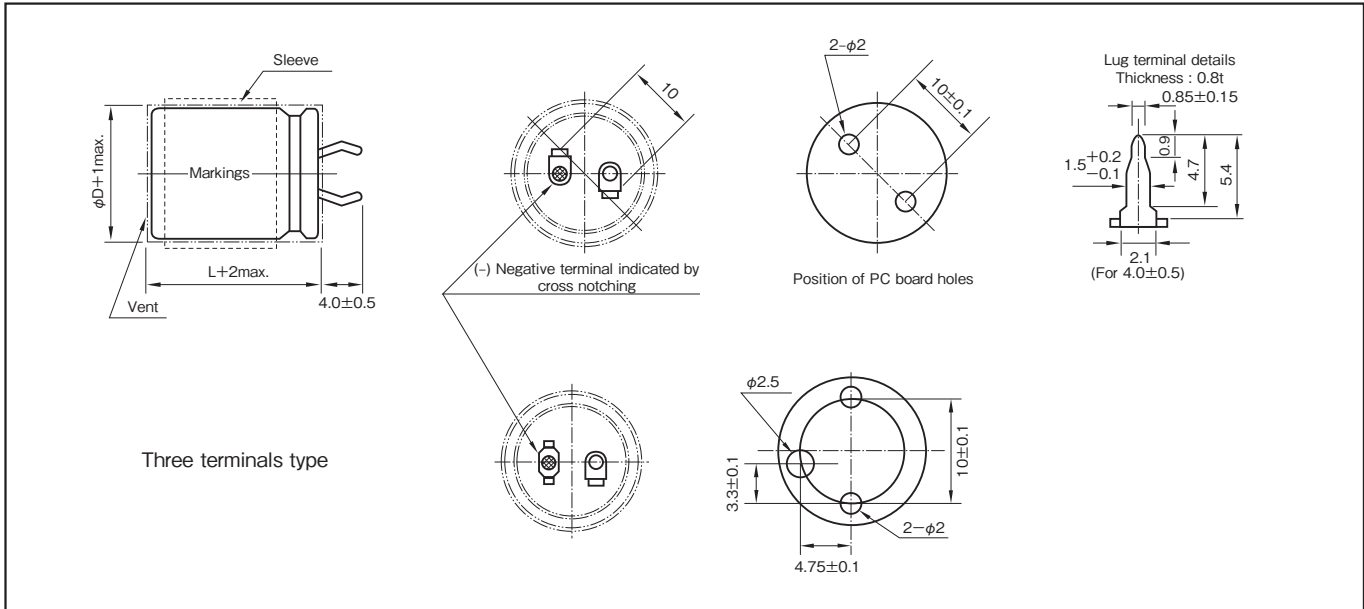
Marking color : White print on a black sleeve

Specifications

Item	Performance							
Category temperature range (°C)	-40 to +105 (-25 to +105 at 160V or more)							
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)	16	25	35	50	63 to 100	160 to 250	350 to 500
	tanδ (max.)	0.50	0.40	0.35	0.30	0.20	0.15	0.20
Characteristics at high and low temperature	Rated voltage (V)	16 to 100		160 to 250		350 to 500		
	Impedance ratio (max.)	Z-25°C/Z+20°C		Z-40°C/Z+20°C		Z-25°C/Z+20°C		
Endurance (105°C) (Applied ripple current)	Test time	3000 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 (105°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 LAZ, standard terminal type :400V470µF					
LAZ	—	400 V	471	M	S54 # B
Series code	Rated voltage symbol	Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	Optional symbol
series LTZ, three terminals type :400V470µF					
LTZ	—	400 V	471	M	S54 # 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	30k
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

Case φDXL (mm)	Item Casing Symbol	160		180		200		250		350		400		450		500	
		Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)	Rated capacitance (μF)	Rated ripple current (Arms)
22×20	S21	220	0.90	220	0.91	180	0.82	120	0.67	82	0.55	56	0.53	56	0.53	39	0.44
		270	1.00	270	1.00	220	0.91	150	0.75	100	0.61	68	0.58	68	0.58	47	0.48
		330	1.10	330	1.11	270	1.00	180	0.82	120	0.67	82	0.64	—	—	56	0.53
22×25	S22	330	1.24	330	1.25	270	1.17	180	1.00	100	0.69	82	0.71	68	0.65	56	0.59
		390	1.35	390	1.35	330	1.29	220	1.11	120	0.75	100	0.79	82	0.71	68	0.65
		470	1.48	470	1.49	390	1.35	270	1.13	150	0.84	120	0.86	100	0.79	82	0.71
22×30	S23	470	1.56	390	1.41	390	1.57	270	1.33	150	0.88	120	0.90	100	0.82	68	0.68
		560	1.68	470	1.55	470	1.67	330	1.47	180	0.96	150	1.01	120	0.90	82	0.74
		680	1.85	560	1.69	560	1.69	390	1.49	220	1.06	180	1.10	150	1.01	100	0.82
22×35	S24	560	1.75	560	1.73	470	1.70	330	1.50	180	0.98	150	1.03	120	0.92	100	0.84
		680	1.93	680	1.90	560	1.73	390	1.52	220	1.08	180	1.13	150	1.03	120	0.92
		820	2.08	—	—	680	1.90	470	1.58	270	1.20	220	1.25	180	1.13	—	—
22×40	S25	820	2.17	680	1.97	680	1.97	470	1.64	270	1.24	220	1.29	180	1.17	120	0.95
		1000	2.38	820	2.17	820	2.17	560	1.79	330	1.37	270	1.43	220	1.29	150	1.07
22×45	S26	1000	2.42	820	2.21	820	2.21	560	1.82	330	1.40	270	1.46	220	1.32	150	1.09
		1200	2.66	1000	2.44	—	—	680	2.01	390	1.52	—	—	—	—	180	1.19
22×50	S27	1200	2.84	1000	2.50	1000	2.50	680	2.06	390	1.56	330	1.65	270	1.50	180	1.22
		—	—	1200	2.74	—	—	—	—	—	—	—	—	—	—	—	—
25×20	S31	330	1.25	270	1.14	220	1.03	150	0.92	100	0.69	82	0.72	68	0.66	47	0.55
		390	1.36	330	1.26	270	1.14	180	1.01	120	0.76	100	0.80	82	0.72	56	0.60
		470	1.49	390	1.37	330	1.26	220	1.12	150	0.85	120	0.87	100	0.80	68	0.66
25×25	S32	470	1.59	390	1.42	330	1.40	270	1.33	150	0.88	120	0.91	100	0.84	68	0.68
		560	1.74	470	1.56	390	1.52	330	1.47	180	0.97	150	1.01	120	0.91	82	0.75
		680	1.86	560	1.70	470	1.67	390	1.50	220	1.07	180	1.11	150	1.01	100	0.83
25×30	S33	560	1.73	560	1.74	470	1.56	330	1.51	180	0.99	150	1.01	120	0.93	82	0.77
		680	1.91	680	1.91	560	1.70	390	1.55	220	1.09	180	1.11	150	1.03	100	0.85
		820	2.09	820	2.10	680	1.87	470	1.61	270	1.18	220	1.23	180	1.13	120	0.93
25×35	S34	820	2.17	680	1.95	560	1.77	470	1.68	270	1.23	220	1.28	180	1.16	120	0.95
		1000	2.40	820	2.14	680	1.95	560	1.77	330	1.36	270	1.42	220	1.28	150	1.05
		—	—	1000	2.37	820	2.14	—	—	—	—	—	—	—	—	—	—
25×40	S35	1000	2.60	1000	2.43	820	2.20	560	1.82	330	1.40	270	1.45	220	1.31	150	1.08
		1200	2.84	1200	2.67	1000	2.43	680	2.01	390	1.52	330	1.61	270	1.45	180	1.19
25×45	S36	1200	2.90	1200	2.73	1000	2.49	680	2.06	390	1.56	330	1.65	270	1.49	180	1.22
		1500	3.25	—	—	1200	2.73	820	2.26	470	1.71	390	1.79	330	1.65	220	1.35
25×50	S37	1500	3.38	1500	3.26	1200	2.92	820	2.42	470	1.83	390	1.91	330	1.76	220	1.44
		—	—	—	—	—	—	1000	2.66	560	1.99	—	—	—	—	270	1.59
30×20	S41	470	1.50	390	1.37	390	1.37	270	1.14	150	0.85	120	0.87	100	0.80	68	0.66
		560	1.63	470	1.50	470	1.50	330	1.26	180	0.93	150	0.98	120	0.87	82	0.72
		680	1.80	560	1.64	560	1.64	390	1.37	220	1.03	180	1.07	150	0.98	100	0.80
30×25	S42	680	1.85	560	1.69	560	1.75	390	1.47	220	1.06	180	1.10	150	1.00	100	0.82
		820	2.03	680	1.86	680	1.92	470	1.61	270	1.17	220	1.22	180	1.10	120	0.90
		1000	2.24	820	2.04	820	2.04	560	1.69	330	1.29	270	1.35	220	1.22	150	1.00
30×30	S43	820	2.35	820	2.17	680	1.97	470	1.65	270	1.24	220	1.29	180	1.15	120	0.95
		1000	2.60	1000	2.39	820	2.17	560	1.80	330	1.37	270	1.43	220	1.27	150	1.07
		1200	2.84	1200	2.62	1000	2.39	680	1.98	390	1.49	330	1.58	270	1.43	180	1.17
30×35	S44	1200	2.96	1000	2.43	1000	2.43	680	2.04	390	1.52	330	1.61	270	1.45	180	1.19
		1500	3.10	1200	2.66	1200	2.66	820	2.24	470	1.67	390	1.75	330	1.61	220	1.31
30×40	S45	—	—	1500	2.98	—	—	—	—	560	1.82	—	—	—	—	—	—
		1500	3.21	1500	3.01	1200	2.69	820	2.42	470	1.69	390	1.77	330	1.62	220	1.33
		1800	3.52	1800	3.30	1500	3.01	1000	2.60	560	1.84	470	1.94	390	1.77	270	1.47
30×45	S46	1800	3.91	1800	3.42	1500	3.12	1000	2.76	680	2.10	470	2.01	390	1.83	270	1.52
		2200	4.32	—	—	1800	3.42	1200	3.00	—	—	560	2.19	470	2.01	330	1.68
30×50	S47	2200	4.50	2200	3.91	1800	3.54	1200	3.00	680	2.18	560	2.27	470	2.22	330	1.74
		—	—	—	—	—	—	—	—	820	2.39	680	2.50	560	2.27	390	1.90
35×20	S51	560	1.82	560	1.66	470	1.67	330	1.30	180	0.94	150	0.99	120	0.89	100	0.81
		680	2.01	680	1.83	560	1.82	390	1.41	220	1.04	180	1.08	150	0.99	120	0.89
		820	2.20	820	2.01	680	2.01	470	1.55	270	1.15	220	1.20	180	1.08	150	0.99
35×25	S52	820	2.35	820	2.11	680	2.20	470	1.65	270	1.19	220	1.23	180	1.12	150	1.02
		1000	2.60	1000	2.33	820	2.42	560	1.80	330	1.31	270	1.37	220	1.23	180	1.12
		1200	2.84	1200	2.55	1000	2.67	680	1.98	390	1.43	330	1.51	270	1.37	220	1.23
35×30	S53	1200	2.95	1000	2.42	820	2.40	680	2.04	390	1.51	330	1.56	270	1.50	180	1.15
		1500	3.06	1200	2.65	1000	2.65	820	2.24	470	1.66	390	1.69	330	1.66	220	1.27
		1800	3.35	1500	2.96	1200	2.90	1000	2.47	560	1.81	470	1.86	390	1.69	270	1.41
35×35	S54	1500	3.21	1500	3.02	1200	2.65	820	2.35	470	1.69	390	1.76	330	1.62	270	1.46
		1800	3.52	1800	3.31	1500	2.97	1000	2.60	560	1.85	470	1.93	390	1.76	330	1.62
		2200	3.89	—	—	1800	3.25	1200	2.78	680	2.04	560	2.11	470	1.93	—	—
35×40	S55	2200	4.36	1800	3.37	1500	3.45	1200	2.80	680	2.07	560	2.16	470	2.20	330	1.66
		2700	4.83	2200	3.73	1800	3.78	1500	2.82	820	2.28	680	2.39	560	2.40	390	1.81
35×45	S56	—	—	2200	3.84	2200	4.42	1500	2.88	680	2.14	680	2.53	560	2.48	390	1.86
		—	—	2700	4.25	—	—	—	—	820	2.34	—	—	—	—	470	2.04
35×50	S57	2700	5.15	2700	4.29	2200	4.60	1500	3.30	1000	2.61	820	3.00	680	2.61	470	2.06
		3300	5.69	3300	4.74	2700	5.09	1800	3.44	—	—	—	—	—	—	560	2.25

(Note) Rated ripple current : 105°C, 120Hz