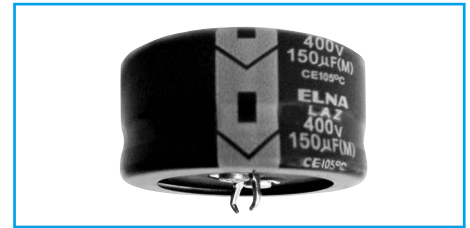
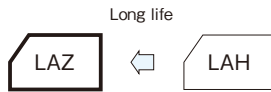


High-Reliability, High-Ripple, Long Life Capacitors

GREEN CAP 105°C 3000hours

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



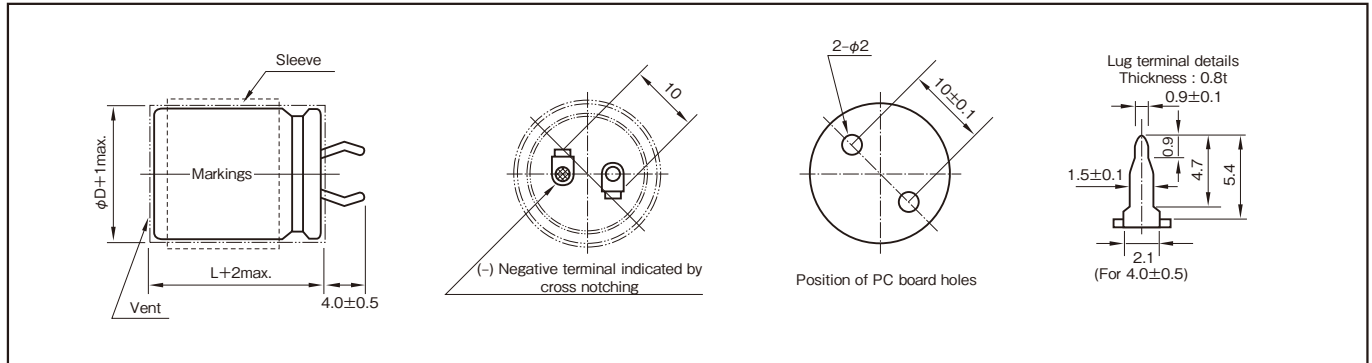
Marking color : White print on a black sleeve

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 0.02CV or 3mA whichever is smaller (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 250 400 to 450
	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 200 250 to 400
	Impedance ratio (max.)	Z-25°C/Z+20°C 4 4 4 Z-40°C/Z+20°C 15 — —
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 (example : 200V470µF)

LAZ	—	200	V	471	M	S33	#
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	

Coefficient of Frequency for Rated Ripple Current

Frequency (Hz)	50	120	1k	10k	30k
Rated voltage (V)					
100 or less	0.95	1	1.10	1.15	1.15
160 to 250	0.87	1	1.11	1.18	1.20
315 or more	0.80	1	1.14	1.19	1.20

• The standard ratings are described on the next page.

Standard Ratings

Rated voltage (V) Case φD×L (mm) Casing symbol		Item		16		25		35		50		63		80		100	
		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
22×25	S22	6800	1.60	4700	1.55	3300	1.43	1800	1.31	1200	1.25	820	1.11	560	1.07		
22×30	S23	10000	1.99	6800	1.91	3900	1.65	2700	1.70	1800	1.52	1200	1.39	820	1.35		
22×35	S24	12000	2.28	8200	2.14	5600	2.02	3300	1.98	2200	1.73	1500	1.61	1000	1.54		
22×40	S25	15000	2.64	10000	2.40	6800	2.28	3900	2.25	2700	1.97	1800	1.83	1200	1.74		
22×45	S26	18000	2.98	12000	2.69	—	—	4700	2.56	—	—	2200	2.09	1500	1.99		
22×50	S27	—	—	—	—	8200	2.67	5600	2.89	3300	2.32	—	—	—	—		
25×25	S32	10000	1.99	6800	1.91	4700	1.78	2700	1.70	1800	1.52	1200	1.39	820	1.35		
25×30	S33	12000	2.30	8200	2.16	5600	2.04	3300	2.00	2200	1.75	1500	1.62	1000	1.56		
25×35	S34	15000	2.68	10000	2.44	6800	2.31	3900	2.28	2700	1.99	2200	2.01	1200	1.76		
25×40	S35	18000	3.04	12000	2.74	8200	2.60	5600	2.81	3300	2.27	—	—	1500	2.03		
25×45	S36	22000	3.40	15000	3.15	10000	2.92	—	—	3900	2.54	2700	2.43	1800	2.28		
25×50	S37	27000	3.81	18000	3.54	12000	3.26	6800	3.37	4700	2.88	3300	2.76	2200	2.57		
30×25	S42	12000	2.38	8200	2.25	5600	2.12	3900	2.22	2700	1.93	1800	1.81	1200	1.71		
30×30	S43	18000	3.00	12000	2.70	8200	2.56	4700	2.58	3300	2.24	2200	2.10	1500	2.00		
30×35	S44	22000	3.39	15000	3.13	10000	2.92	5600	2.95	3900	2.55	2700	2.43	1800	2.27		
30×40	S45	27000	3.83	18000	3.54	12000	3.28	6800	3.39	4700	2.90	3300	2.78	2200	2.59		
30×45	S46	33000	4.30	22000	4.24	15000	3.74	8200	3.71	5600	3.28	3900	3.12	2700	2.94		
30×50	S47	39000	4.74	—	—	—	—	10000	4.09	6800	3.73	4700	3.56	3300	3.32		
35×25	S52	18000	3.10	12000	2.80	8200	2.78	4700	2.67	3300	2.41	2200	2.17	1500	2.07		
35×30	S53	27000	3.74	15000	3.22	12000	3.20	6800	3.31	4700	2.83	3300	2.71	2200	2.52		
35×35	S54	33000	4.24	22000	3.96	15000	3.69	8200	3.66	5600	3.24	3900	3.07	2700	2.90		
35×40	S55	39000	4.72	—	—	18000	4.16	10000	4.07	6800	3.71	4700	3.50	3300	3.31		
35×45	S56	47000	5.27	27000	4.75	—	—	12000	4.50	8200	4.16	5600	3.87	3900	3.69		
35×50	S57	—	—	33000	5.39	22000	4.92	—	—	10000	4.69	6800	4.19	4700	4.14		

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

NOTE

Design, Specifications are subject to change without notice.
Ask factory for technical specifications before purchase and/or use.

Standard Ratings

Rated voltage(V)		160		180		200		250		400		450	
Case φD×L(mm)	Item Casing symbol	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current
		μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms
22×20	S21	180	0.70	180	0.70	150	0.65	120	0.60	47	0.37	—	—
22×25	S22	330	1.16	270	1.08	220	1.08	180	0.94	68	0.47	56	0.47
22×30	S23	390	1.43	330	1.30	330	1.30	220	1.10	82	0.56	68	0.56
		—	—	390	1.35	—	—	—	—	100	0.62	82	0.64
22×35	S24	470	1.52	470	1.50	390	1.41	270	1.13	120	0.75	82	0.65
		560	1.50	—	—	—	—	—	—	—	—	100	0.70
22×40	S25	560	1.62	560	1.62	470	1.50	330	1.30	150	0.83	100	0.70
		—	—	—	—	—	—	390	1.41	—	—	120	0.73
22×45	S26	680	1.70	680	1.75	560	1.58	390	1.49	180	0.98	120	0.77
		—	—	—	—	—	—	—	—	—	—	150	0.88
22×50	S27	820	1.91	680	1.80	680	1.78	470	1.50	220	1.10	150	0.90
		—	—	—	—	—	—	—	—	—	—	180	1.00
25×20	S31	220	0.81	220	0.85	220	0.85	150	0.74	68	0.46	—	—
		270	0.95	—	—	—	—	—	—	—	—	—	—
25×25	S32	390	1.30	390	1.35	330	1.35	220	1.15	82	0.65	68	0.56
		470	1.55	—	—	—	—	—	—	100	0.62	82	0.64
25×30	S33	560	1.73	470	1.62	470	1.47	330	1.30	120	0.70	100	0.70
		680	1.82	—	—	—	—	—	—	150	0.83	120	0.73
25×35	S34	680	1.85	560	1.69	560	1.65	390	1.41	150	0.85	120	0.77
		—	—	680	1.72	—	—	—	—	180	0.98	150	0.88
25×40	S35	820	1.98	680	1.75	680	1.80	470	1.52	180	1.01	150	0.90
		—	—	820	1.85	—	—	—	—	220	1.05	180	1.00
25×45	S36	1000	2.04	820	1.85	820	1.97	560	1.80	220	1.05	180	1.02
		1200	2.12	1000	1.91	—	—	—	—	270	1.22	220	1.12
25×50	S37	1200	2.20	1000	1.95	820	1.99	680	2.00	270	1.25	220	1.15
		—	—	—	—	1000	2.17	—	—	330	1.44	—	—
30×20	S41	390	1.25	330	1.15	270	1.05	220	0.95	100	0.60	—	—
		680	1.82	560	1.67	470	1.56	330	1.30	120	0.78	100	0.70
30×25	S42	—	—	—	—	—	—	390	1.41	150	0.83	120	0.73
		820	1.98	680	1.74	680	1.82	470	1.51	180	0.98	150	0.88
30×30	S43	—	—	820	1.85	—	—	560	1.70	220	1.03	180	0.95
		1000	2.14	820	1.90	820	1.99	560	1.80	220	1.10	180	0.99
30×35	S44	—	—	1000	2.01	—	—	680	1.90	270	1.22	220	1.12
		1200	2.22	1000	2.10	1000	2.17	680	2.00	270	1.23	220	1.16
30×40	S45	1500	2.46	1200	2.19	—	—	820	2.20	330	1.44	270	1.28
		1500	2.60	1200	2.19	1000	2.20	820	2.25	330	1.45	270	1.32
30×45	S46	—	—	1500	2.36	1200	2.32	—	—	390	1.60	—	—
		1800	2.98	1500	2.52	1200	2.39	1000	2.47	390	1.60	330	1.45
30×50	S47	—	—	—	—	1500	2.59	—	—	470	1.90	—	—
		560	1.55	470	1.40	470	1.56	330	1.16	150	0.80	—	—
35×25	S52	820	1.93	680	1.92	680	1.96	470	1.51	180	0.95	150	0.86
		—	—	820	1.95	—	—	560	1.65	220	1.03	—	—
35×30	S53	1200	2.40	1000	2.16	820	2.07	560	1.65	270	1.22	220	1.12
		—	—	—	—	1000	2.22	680	2.00	330	1.37	—	—
35×35	S54	1500	2.53	1200	2.34	1000	2.22	820	2.20	330	1.39	270	1.28
		—	—	1500	2.56	1200	2.42	—	—	390	1.60	—	—
35×40	S55	1800	2.98	1500	2.56	1200	2.42	1000	2.47	390	1.60	330	1.45
		—	—	1800	2.60	1500	2.59	—	—	470	1.85	390	1.45
35×45	S56	1800	3.00	1800	2.67	1500	2.61	1200	2.60	470	1.91	390	1.49
		2200	3.10	—	—	1800	2.70	—	—	560	2.12	—	—
35×50	S57	2200	3.20	2200	3.15	1800	2.85	1500	3.00	560	2.15	470	1.85
		2700	3.89	—	—	2200	3.30	—	—	—	—	—	—

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