ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

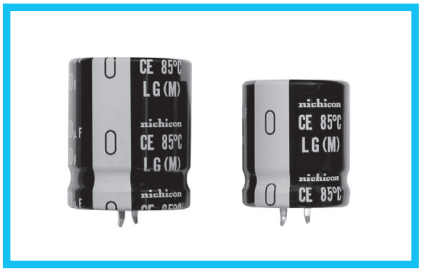
LLG

Snap-in Terminal Type, 85°C Smaller-Sized

Smaller

- One rank smaller case sized than LLS.
- Suited for equipment down sizing.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

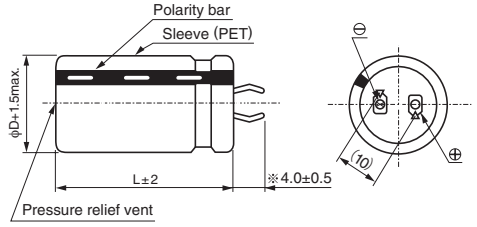
LLS
Smaller
LLG

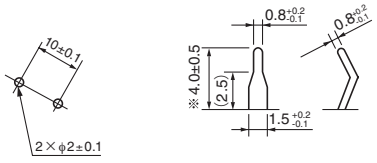


■Specifications

Item	Performance Characteristics
Category Temperature Range	– 40 to + 85°C (160 to 250V), – 25 to + 85°C (400 to 450V)
Rated Voltage Range	160 to 450V
Rated Capacitance Range	120 to 3900μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	$I \leqq 3\sqrt{CV}$ (μA) (After 5 minutes' application of rated voltage at 20°C) [C : Rated Capacitance (μF) V : Voltage (V)]
Tangent of loss angle (tan δ)	Rated voltage (V): 160 to 400 / 450; tan δ (max.): 0.15 / 0.20. Measurement frequency : 120Hz at 20°C
Stability at Low Temperature	Rated voltage (V): 160 to 250 / 400 • 450; Impedance ratio (max.) Z(– 25°C) / Z(+20°C): 4 / 8. Measurement frequency : 120Hz
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 85°C, the peak voltage shall not exceed the rated voltage. — Capacitance change: Within ±20% of the initial capacitance value; tan δ: 200% or less than the initial specified value; Leakage current: Less than or equal to the initial specified value
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the characteristic requirements listed at right. — Capacitance change: Within ±20% of the initial capacitance value; tan δ: 200% or less than the initial specified value; Leakage current: Less than or equal to the initial specified value
Marking	Printed with white color letter on black sleeve.

■Drawing





(PC board hole dimensions) (Terminal dimensions)

※ Other terminations available upon request.
Please refer to the Guidelines for Aluminum Electrolytic Capacitors.

Type numbering system (Example : 400V 180μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
L	L	G	2	G	1	8	1	M	E	L	A	2	5

Case length code
Case dia.code
Configuration
Capacitance tolerance (±20%)
Rated capacitance (180μF)
Rated voltage (400V)
Series name
Type

φD	Code
22	Z
25	A
30	B
35	C

● Dimension table in next page.

LLG

■ Dimensions

160V (2C)				
Cap. (μF)	Size φD x L(mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
560	22 × 25	2250	0.89	LLG2C561MELZ25
680	22 × 30	2500	0.98	LLG2C681MELZ30
820	22 × 35	2750	1.08	LLG2C821MELZ35
	25 × 25	2520	1.08	LLG2C821MELA25
1000	22 × 40	3000	1.20	LLG2C102MELZ40
	25 × 30	3000	1.20	LLG2C102MELA30
1200	22 × 40	3050	1.31	LLG2C122MELZ40
	25 × 35	3250	1.31	LLG2C122MELA35
	30 × 25	3050	1.31	LLG2C122MELB25
1500	22 × 50	3400	1.46	LLG2C152MELZ50
	25 × 40	3400	1.46	LLG2C152MELA40
	30 × 30	3400	1.46	LLG2C152MELB30
	35 × 25	3400	1.46	LLG2C152MELC25
1800	25 × 45	3800	1.60	LLG2C182MELA45
	30 × 35	4200	1.60	LLG2C182MELB35
	35 × 30	4100	1.60	LLG2C182MELC30
2200	30 × 40	4450	1.77	LLG2C222MELB40
	35 × 35	4780	1.77	LLG2C222MELC35
2700	30 × 45	4900	1.97	LLG2C272MELB45
	35 × 40	5450	1.97	LLG2C272MELC40
3300	35 × 45	5750	2.17	LLG2C332MELC45
3900	35 × 50	6000	2.36	LLG2C392MELC50

180V (2Z)				
Cap. (μF)	Size φD x L(mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
560	22 × 25	1800	0.95	LLG2Z561MELZ25
680	22 × 30	1900	1.04	LLG2Z681MELZ30
	25 × 25	2100	1.04	LLG2Z681MELA25
820	22 × 35	2450	1.15	LLG2Z821MELZ35
	25 × 30	2400	1.15	LLG2Z821MELA30
1000	22 × 40	2800	1.27	LLG2Z102MELZ40
	25 × 35	2700	1.27	LLG2Z102MELA35
	30 × 25	2650	1.27	LLG2Z102MELB25
1200	22 × 45	2900	1.39	LLG2Z122MELZ45
	25 × 40	3000	1.39	LLG2Z122MELA40
	30 × 30	3000	1.39	LLG2Z122MELB30
	35 × 25	3000	1.39	LLG2Z122MELC25
1500	25 × 45	3300	1.55	LLG2Z152MELA45
	30 × 35	3300	1.55	LLG2Z152MELB35
	35 × 30	3300	1.55	LLG2Z152MELC30
1800	25 × 50	3600	1.70	LLG2Z182MELA50
	30 × 40	3600	1.70	LLG2Z182MELB40
	35 × 30	3400	1.70	LLG2Z182MELC30
2200	30 × 45	4300	1.88	LLG2Z222MELB45
	35 × 35	4300	1.88	LLG2Z222MELC35
2700	30 × 50	4700	2.09	LLG2Z272MELB50
	35 × 40	4700	2.09	LLG2Z272MELC40
3300	35 × 45	5000	2.31	LLG2Z332MELC45

200V (2D)				
Cap. (μF)	Size φD x L(mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
470	22 × 25	1430	0.91	LLG2D471MELZ25
560	22 × 30	2070	1.00	LLG2D561MELZ30
	25 × 25	2070	1.00	LLG2D561MELA25
680	22 × 35	2280	1.10	LLG2D681MELZ35
	25 × 30	2280	1.10	LLG2D681MELA30
820	22 × 40	2490	1.21	LLG2D821MELZ40
	25 × 30	2340	1.21	LLG2D821MELA30
1000	22 × 45	2550	1.34	LLG2D102MELZ45
	25 × 35	2550	1.34	LLG2D102MELA35
	30 × 30	2760	1.34	LLG2D102MELB30
1200	22 × 50	2810	1.46	LLG2D122MELZ50
	25 × 40	2810	1.46	LLG2D122MELA40
	30 × 30	2810	1.46	LLG2D122MELB30
	35 × 25	2810	1.46	LLG2D122MELC25
1500	25 × 50	3290	1.64	LLG2D152MELA50
	30 × 35	2980	1.64	LLG2D152MELB35
	35 × 30	3290	1.64	LLG2D152MELC30
1800	30 × 40	3320	1.80	LLG2D182MELB40
	35 × 35	3670	1.80	LLG2D182MELC35
2200	30 × 50	4180	1.98	LLG2D222MELB50
	35 × 40	4180	1.98	LLG2D222MELC40
2700	35 × 45	4340	2.20	LLG2D272MELC45
3300	35 × 50	4420	2.43	LLG2D332MELC50

250V (2E)				
Cap. (μF)	Size φD x L(mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
330	22 × 25	1300	0.86	LLG2E331MELZ25
390	22 × 30	1910	0.93	LLG2E391MELZ30
470	25 × 25	2000	1.02	LLG2E471MELA25
560	22 × 40	2250	1.12	LLG2E561MELZ40
	25 × 30	2250	1.12	LLG2E561MELA30
680	22 × 45	2500	1.23	LLG2E681MELZ45
	25 × 35	2500	1.23	LLG2E681MELA35
	30 × 25	2500	1.23	LLG2E681MELB25
820	25 × 40	2770	1.35	LLG2E821MELA40
	30 × 30	2770	1.35	LLG2E821MELB30
	35 × 25	2770	1.35	LLG2E821MELC25
1000	25 × 50	3320	1.50	LLG2E102MELA50
	30 × 35	3320	1.50	LLG2E102MELB35
	35 × 30	3320	1.50	LLG2E102MELC30
1200	30 × 40	3840	1.64	LLG2E122MELB40
	35 × 35	3840	1.64	LLG2E122MELC35
1500	30 × 50	4250	1.83	LLG2E152MELB50
	35 × 40	4250	1.83	LLG2E152MELC40
1800	35 × 45	4550	2.01	LLG2E182MELC45
2200	35 × 50	4750	2.22	LLG2E222MELC50

Rated ripple current (mArms) at 85°C 120Hz

LLG

■Dimensions

400V (2G)				
Cap. (μF)	Size φD x L(mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
150	22 × 25	1030	0.73	LLG2G151MELZ25
180	22 × 30	1160	0.80	LLG2G181MELZ30
	25 × 25	1160	0.80	LLG2G181MELA25
220	22 × 35	1400	0.88	LLG2G221MELZ35
	25 × 30	1400	0.88	LLG2G221MELA30
270	22 × 40	1500	0.98	LLG2G271MELZ40
	25 × 35	1500	0.98	LLG2G271MELA35
330	22 × 45	1700	1.08	LLG2G331MELZ45
	25 × 35	1700	1.08	LLG2G331MELA35
	30 × 30	1700	1.08	LLG2G331MELB30
390	22 × 50	1900	1.18	LLG2G391MELZ50
	25 × 40	1900	1.18	LLG2G391MELA40
	30 × 30	1900	1.18	LLG2G391MELB30
	35 × 25	1900	1.18	LLG2G391MELC25
470	25 × 50	2130	1.30	LLG2G471MELA50
	30 × 35	2130	1.30	LLG2G471MELB35
	35 × 30	2130	1.30	LLG2G471MELC30
560	30 × 40	2390	1.41	LLG2G561MELB40
	35 × 35	2390	1.41	LLG2G561MELC35
680	30 × 45	2690	1.56	LLG2G681MELB45
	35 × 35	2690	1.56	LLG2G681MELC35
820	35 × 40	2960	1.71	LLG2G821MELC40
1000	35 × 50	3300	1.89	LLG2G102MELC50

450V (2W)				
Cap. (μF)	Size φD x L(mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
120	22 × 25	930	0.69	LLG2W121MELZ25
150	22 × 30	1040	0.77	LLG2W151MELZ30
	25 × 25	1040	0.77	LLG2W151MELA25
180	22 × 35	1300	0.85	LLG2W181MELZ35
	25 × 30	1300	0.85	LLG2W181MELA30
220	22 × 40	1400	0.94	LLG2W221MELZ40
	25 × 35	1500	0.94	LLG2W221MELA35
	30 × 25	1400	0.94	LLG2W221MELB25
270	22 × 45	1660	1.04	LLG2W271MELZ45
	25 × 40	1800	1.04	LLG2W271MELA40
	30 × 30	1800	1.04	LLG2W271MELB30
330	25 × 45	1950	1.15	LLG2W331MELA45
	30 × 35	1950	1.15	LLG2W331MELB35
	35 × 30	1950	1.15	LLG2W331MELC30
390	25 × 50	2100	1.25	LLG2W391MELA50
	30 × 35	2100	1.25	LLG2W391MELB35
	35 × 30	2100	1.25	LLG2W391MELC30
470	30 × 40	2320	1.37	LLG2W471MELB40
	35 × 35	2320	1.37	LLG2W471MELC35
560	30 × 50	2660	1.50	LLG2W561MELB50
	35 × 40	2660	1.50	LLG2W561MELC40
680	35 × 45	2820	1.65	LLG2W681MELC45
820	35 × 50	3000	1.82	LLG2W821MELC50

Rated ripple current (mArms) at 85°C 120Hz

● Frequency coefficient of rated ripple current

Frequency (Hz)		50	60	120	300	1k	10k	50k or more
coeff	160 to 250V	0.81	0.85	1.00	1.17	1.32	1.45	1.50
	400・450V	0.77	0.82	1.00	1.16	1.30	1.41	1.43