ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

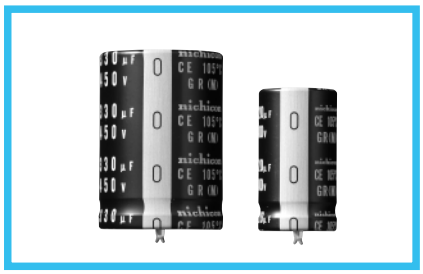
GR series

Snap-in Terminal Type, 105°C Long Life Assurance

Long Life

- Long life assurance series withstanding 10000 hours application of ripple current at 105°C.
- Compliant of the RoHS directive (2011/65/EU).

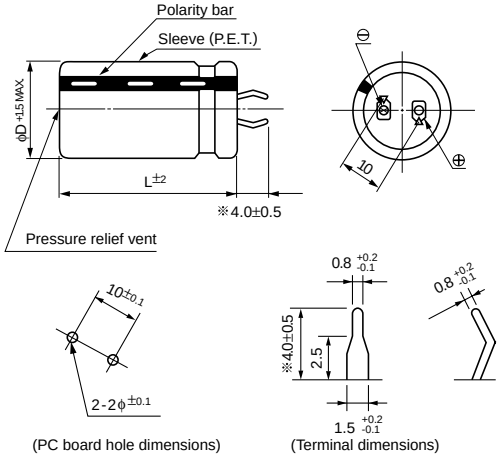
GR ← Long Life GY



■Specifications

Item	Performance Characteristics
Category Temperature Range	– 40 to +105°C (200 ・ 250V) , – 25 to +105°C (400 ・ 450V)
Rated Voltage Range	200 to 450V
Rated Capacitance Range	39 to 1500μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	$I \leqq 3\sqrt{CV}$ (μA) (After 5 minutes' application of rated voltage) [C : Rated Capacitance (μF) V : Voltage (V)]
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C Rated voltage(V): 200 to 400 | 450 tan δ (MAX.): 0.15 | 0.20
Stability at Low Temperature	Measurement frequency : 120Hz Rated voltage (V): 200 ・ 250 | 400 ・ 450 Impedance ratio ZT/Z20 (MAX.) Z–25°C/Z+20°C: 3 | 8 Impedance ratio ZT/Z20 (MAX.) Z–40°C/Z+20°C: 12 | —
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 10000 hours at 105°C, the peak voltage shall not exceed the rated voltage. Capacitance change: Within ±25% of the initial capacitance value tan δ: 250% 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 105°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 requirements listed at right. Capacitance change: Within ±15% of the initial capacitance value tan δ: 150% 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



※ The other terminal is also available upon request.
Please refer page 328 for schematic of dimensions.

Type numbering system (Example : 400V 120μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
L	G	R	2	G	1	2	1	M	E	L	Z	4	0

- 13 14: Case length code
- 12: Case dia. code
- 11: Configuration
- 9 10: Capacitance tolerance (±20%)
- 6 7 8: Rated capacitance (120μF)
- 4 5: Rated voltage (400V)
- 3: Series name
- 1 2: Type

φD	Code
22	Z
25	A
30	B
35	C

●Frequency coefficient of rated ripple current

Frequency (Hz)		50	60	120	300	1k	10k	50k or more
Coeff.	200・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

Minimum order quantity : 50pcs.

● Dimension table in next page.

GR series

■Dimensions

200V (2D)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
220	22 × 25	1000	0.62	LGR2D221MELZ25
270	22 × 30	1100	0.69	LGR2D271MELZ30
	25 × 25	1100	0.69	LGR2D271MELA25
330	22 × 30	1200	0.77	LGR2D331MELZ30
	25 × 25	1200	0.77	LGR2D331MELA25
390	22 × 35	1300	0.83	LGR2D391MELZ35
	25 × 30	1300	0.83	LGR2D391MELA30
	30 × 25	1300	0.83	LGR2D391MELB25
470	22 × 40	1400	0.91	LGR2D471MELZ40
	25 × 35	1400	0.91	LGR2D471MELA35
	30 × 30	1400	0.91	LGR2D471MELB30
560	22 × 45	1500	1.00	LGR2D561MELZ45
	25 × 35	1500	1.00	LGR2D561MELA35
	30 × 30	1500	1.00	LGR2D561MELB30
680	25 × 40	1700	1.10	LGR2D681MELA40
	30 × 35	1700	1.10	LGR2D681MELB35
820	25 × 50	2000	1.21	LGR2D821MELA50
	30 × 40	2000	1.21	LGR2D821MELB40
	35 × 30	2000	1.21	LGR2D821MELC30
1000	30 × 45	2200	1.34	LGR2D102MELB45
	35 × 35	2200	1.34	LGR2D102MELC35
1200	30 × 50	2300	1.46	LGR2D122MELB50
	35 × 40	2300	1.46	LGR2D122MELC40
1500	35 × 50	2500	1.64	LGR2D152MELC50

250V (2E)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
180	22 × 30	900	0.63	LGR2E181MELZ30
	25 × 25	900	0.63	LGR2E181MELA25
220	22 × 30	1000	0.70	LGR2E221MELZ30
	25 × 25	1000	0.70	LGR2E221MELA25
270	22 × 35	1100	0.77	LGR2E271MELZ35
	25 × 30	1100	0.77	LGR2E271MELA30
	30 × 25	1100	0.77	LGR2E271MELB25
330	22 × 40	1200	0.86	LGR2E331MELZ40
	25 × 35	1200	0.86	LGR2E331MELA35
	30 × 25	1200	0.86	LGR2E331MELB25
390	22 × 45	1300	0.93	LGR2E391MELZ45
	25 × 35	1300	0.93	LGR2E391MELA35
	30 × 30	1300	0.93	LGR2E391MELB30
470	25 × 45	1400	1.02	LGR2E471MELA45
	30 × 35	1400	1.02	LGR2E471MELB35
	35 × 30	1400	1.02	LGR2E471MELC30
560	25 × 50	1500	1.12	LGR2E561MELA50
	30 × 35	1500	1.12	LGR2E561MELB35
	35 × 30	1500	1.12	LGR2E561MELC30
680	30 × 45	1700	1.23	LGR2E681MELB45
	35 × 35	1700	1.23	LGR2E681MELC35
820	30 × 50	2000	1.35	LGR2E821MELB50
	35 × 40	2000	1.35	LGR2E821MELC40
1000	35 × 45	2200	1.50	LGR2E102MELC45
1200	35 × 50	2300	1.64	LGR2E122MELC50

400V (2G)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
56	22 × 25	510	0.44	LGR2G560MELZ25
68	22 × 30	560	0.49	LGR2G680MELZ30
	25 × 25	560	0.49	LGR2G680MELA25
82	22 × 35	640	0.54	LGR2G820MELZ35
	25 × 25	640	0.54	LGR2G820MELA25
100	22 × 35	690	0.60	LGR2G101MELZ35
	25 × 30	690	0.60	LGR2G101MELA30
120	22 × 40	750	0.65	LGR2G121MELZ40
	25 × 35	750	0.65	LGR2G121MELA35
	30 × 25	750	0.65	LGR2G121MELB25
150	22 × 50	820	0.73	LGR2G151MELZ50
	25 × 40	820	0.73	LGR2G151MELA40
	30 × 30	820	0.73	LGR2G151MELB30
180	25 × 45	900	0.80	LGR2G181MELA45
	30 × 35	900	0.80	LGR2G181MELB35
	35 × 25	900	0.80	LGR2G181MELC25
220	25 × 50	1000	0.88	LGR2G221MELA50
	30 × 40	1000	0.88	LGR2G221MELB40
	35 × 30	1000	0.88	LGR2G221MELC30
270	30 × 45	1100	0.98	LGR2G271MELB45
	35 × 35	1100	0.98	LGR2G271MELC35
330	30 × 50	1200	1.08	LGR2G331MELB50
	35 × 40	1200	1.08	LGR2G331MELC40
390	35 × 45	1300	1.18	LGR2G391MELC45
470	35 × 50	1400	1.30	LGR2G471MELC50

450V (2W)				
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	Leakage Current (mA)	Code
39	22 × 25	370	0.39	LGR2W390MELZ25
47	22 × 30	400	0.43	LGR2W470MELZ30
56	22 × 35	470	0.47	LGR2W560MELZ35
	25 × 25	470	0.47	LGR2W560MELA25
68	22 × 40	530	0.52	LGR2W680MELZ40
	25 × 30	530	0.52	LGR2W680MELA30
82	22 × 45	560	0.57	LGR2W820MELZ45
	25 × 35	560	0.57	LGR2W820MELA35
	30 × 25	560	0.57	LGR2W820MELB25
100	22 × 50	640	0.63	LGR2W101MELZ50
	25 × 40	640	0.63	LGR2W101MELA40
	30 × 30	640	0.63	LGR2W101MELB30
120	25 × 45	720	0.69	LGR2W121MELA45
	30 × 30	720	0.69	LGR2W121MELB30
150	25 × 50	790	0.77	LGR2W151MELA50
	30 × 40	790	0.77	LGR2W151MELB40
	35 × 30	790	0.77	LGR2W151MELC30
180	30 × 45	870	0.85	LGR2W181MELB45
	35 × 35	870	0.85	LGR2W181MELC35
220	30 × 50	1000	0.94	LGR2W221MELB50
	35 × 40	1000	0.94	LGR2W221MELC40
270	35 × 45	1190	1.04	LGR2W271MELC45
330	35 × 50	1380	1.15	LGR2W331MELC50

Rated ripple current (mArms) at 105°C 120Hz