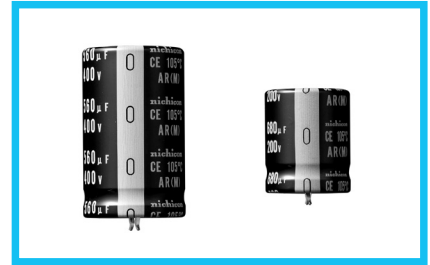


## LAR

Snap-in Terminal Type, 105°C Permissible Overvoltage

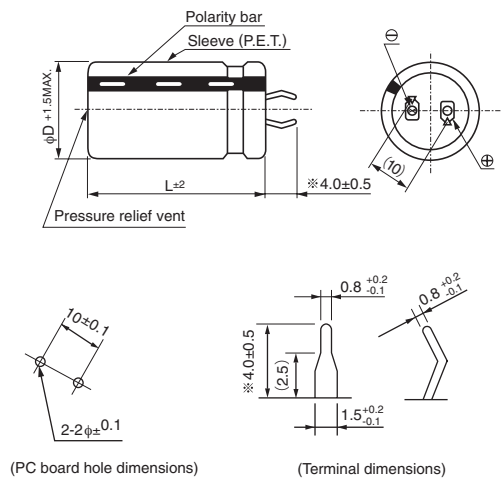
- Withstanding 2000 hours application of rated ripple current at 105°C.
- Reduction of short incidence when overvoltage (rated voltage x 1.5) is applied to a capacitor.
- Compliant to the RoHS directive (2011/65/EU).



### Specifications

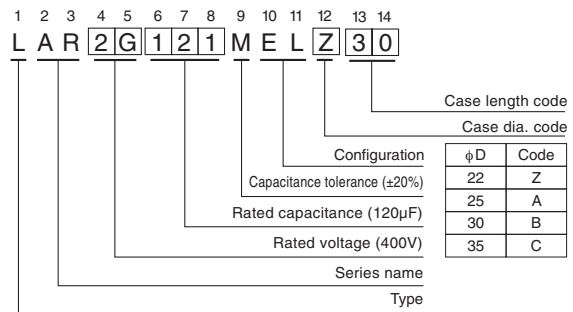
Item	Performance Characteristics	
Category Temperature Range	-40 to +105°C (200 · 250V), -25 to +105°C (400 · 450V)	
Rated Voltage Range	200 to 450V	
Rated Capacitance Range	82 to 2200μF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Leakage Current	$I \leq 3\sqrt{C}$ (μA) (After 5 minutes' application of rated voltage [C: Rated Capacitance(μF), V: Voltage (V)])	
Tangent of loss angle (tan δ)	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 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 2000 hours at 105°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
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
Safety Performance	When overvoltage (rated voltage x 1.5, limited current = 1A) is applied to a capacitor, the pressure relief vent will operate normally more than 60% of the time without short and flame.	
Marking	Printed with white color letter on black sleeve.	

### Drawing



※ The other terminal is also available upon request.  
Please refer page 322 for schematic of dimensions.

### Type numbering system (Example : 400V 120μF)



### 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
	400 · 450V	0.77	0.82	1.00	1.16	1.30	1.41

Minimum order quantity : 50pcs.

● Dimension table in next page.

## LAR

### ■ Dimensions

200V (2D)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
390	22 × 25	1310	0.83	LAR2D391MELZ25
470	22 × 30	1480	0.91	LAR2D471MELZ30
	25 × 25	1480	0.91	LAR2D471MELA25
560	22 × 35	1600	1.00	LAR2D561MELZ35
680	22 × 40	1750	1.10	LAR2D681MELZ40
	25 × 30	1750	1.10	LAR2D681MELA30
	30 × 25	1750	1.10	LAR2D681MELB25
820	22 × 45	2040	1.21	LAR2D821MELZ45
	25 × 35	2040	1.21	LAR2D821MELA35
1000	22 × 50	2300	1.34	LAR2D102MELZ50
	25 × 45	2300	1.34	LAR2D102MELA45
	30 × 30	2300	1.34	LAR2D102MELB30
	35 × 25	2300	1.34	LAR2D102MELC25
1200	25 × 50	2650	1.46	LAR2D122MELA50
	30 × 35	2650	1.46	LAR2D122MELB35
	35 × 30	2650	1.46	LAR2D122MELC30
1500	30 × 40	2800	1.64	LAR2D152MELB40
	35 × 35	2800	1.64	LAR2D152MELC35
1800	30 × 50	3080	1.80	LAR2D182MELB50
	35 × 40	3080	1.80	LAR2D182MELC40
2200	35 × 45	3480	1.98	LAR2D222MELC45

250V (2E)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
270	22 × 25	1100	0.77	LAR2E271MELZ25
330	22 × 30	1200	0.86	LAR2E331MELZ30
	25 × 25	1200	0.86	LAR2E331MELA25
390	22 × 35	1300	0.93	LAR2E391MELZ35
	25 × 30	1300	0.93	LAR2E391MELA30
470	22 × 40	1400	1.02	LAR2E471MELZ40
	25 × 35	1400	1.02	LAR2E471MELA35
	30 × 25	1400	1.02	LAR2E471MELB25
560	22 × 45	1500	1.12	LAR2E561MELZ45
	25 × 35	1500	1.12	LAR2E561MELA35
	30 × 30	1500	1.12	LAR2E561MELB30
680	22 × 50	1700	1.23	LAR2E681MELZ50
	25 × 40	1700	1.23	LAR2E681MELA40
	30 × 30	1700	1.23	LAR2E681MELB30
820	35 × 25	1700	1.23	LAR2E681MELC25
	25 × 45	2000	1.35	LAR2E821MELA45
	30 × 35	2000	1.35	LAR2E821MELB35
1000	35 × 30	2000	1.35	LAR2E821MELC30
	30 × 40	2200	1.50	LAR2E102MELB40
	35 × 35	2200	1.50	LAR2E102MELC35
1200	30 × 45	2300	1.64	LAR2E122MELB45
	35 × 40	2300	1.64	LAR2E122MELC40
1500	35 × 45	2500	1.83	LAR2E152MELC45
1800	35 × 50	2700	2.01	LAR2E182MELC50

400V (2G)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
100	22 × 25	680	0.60	LAR2G101MELZ25
120	22 × 30	730	0.65	LAR2G121MELZ30
180	22 × 35	950	0.80	LAR2G181MELZ35
	25 × 30	950	0.80	LAR2G181MELA30
220	30 × 25	950	0.80	LAR2G181MELB25
	22 × 45	1100	0.88	LAR2G221MELZ45
270	25 × 35	1100	0.88	LAR2G221MELA35
	30 × 25	1100	0.88	LAR2G221MELB25
	22 × 50	1220	0.98	LAR2G271MELZ50
330	25 × 40	1220	0.98	LAR2G271MELA40
	30 × 30	1220	0.98	LAR2G271MELB30
	35 × 25	1220	0.98	LAR2G271MELC25
390	25 × 45	1440	1.08	LAR2G331MELA45
	30 × 35	1440	1.08	LAR2G331MELB35
470	25 × 50	1550	1.18	LAR2G391MELA50
	30 × 40	1550	1.18	LAR2G391MELB40
560	35 × 30	1550	1.18	LAR2G391MELC30
	30 × 45	1680	1.30	LAR2G471MELB45
680	35 × 35	1680	1.30	LAR2G471MELC35
	30 × 50	1900	1.41	LAR2G561MELB50
	35 × 40	1900	1.41	LAR2G561MELC40
	35 × 45	2120	1.56	LAR2G681MELC45

450V (2W)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (mArms)	Leakage Current (mA)	Code
82	22 × 25	340	0.57	LAR2W820MELZ25
100	22 × 30	690	0.63	LAR2W101MELZ30
	25 × 25	690	0.63	LAR2W101MELA25
120	22 × 35	720	0.69	LAR2W121MELZ35
	25 × 30	720	0.69	LAR2W121MELA30
150	22 × 40	790	0.77	LAR2W151MELZ40
	25 × 30	790	0.77	LAR2W151MELA30
	30 × 25	790	0.77	LAR2W151MELB25
180	22 × 45	870	0.85	LAR2W181MELZ45
	25 × 35	870	0.85	LAR2W181MELA35
	30 × 30	870	0.85	LAR2W181MELB30
220	25 × 40	1050	0.94	LAR2W221MELA40
	30 × 30	1050	0.94	LAR2W221MELB30
	35 × 25	1050	0.94	LAR2W221MELC25
270	25 × 50	1230	1.04	LAR2W271MELA50
	30 × 35	1230	1.04	LAR2W271MELB35
	35 × 30	1230	1.04	LAR2W271MELC30
330	30 × 40	1380	1.15	LAR2W331MELB40
	35 × 35	1380	1.15	LAR2W331MELC35
390	30 × 50	1610	1.25	LAR2W391MELB50
	35 × 40	1610	1.25	LAR2W391MELC40
470	35 × 45	1780	1.37	LAR2W471MELC45
560	35 × 50	1990	1.50	LAR2W561MELC50

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