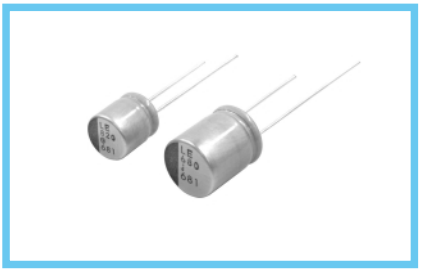
CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

nichicon

LE Ultra Low ESR series

HR High Ripple Current | Z Low Impedance | F For High Frequency | Anti-Solvent Feature

NEW



- Ultra Low ESR, High ripple current.
- Load life of 2000 hours at 105°C.
- Radial lead type :
  Lead free flow soldering condition correspondence
- Adapted to the RoHS directive (2002/95/EC).

LE ← Low ESR — LF

■Specifications

Item	Performance Characteristics
Category Temperature Range	–55 to +105°C
Rated Voltage Range	2.5 to 6.3V
Rated Capacitance Range	470 to 1500µF
Capacitance Tolerance	±20% at 120Hz, 20°C
tan δ	Not more than value of Standard ratings at 120Hz, 20°C
ESR (※1)	Not more than value of Standard ratings at 100kHz, 20°C
Leakage Current (※2)	Not more than value of Standard ratings. After 2 minutes' application of rated voltage. 20°C
Characteristics of Temperature Impedance Ratio	Z+105°C / Z+20°C ≦ 1.25 (100kHz) Z–55°C / Z+20°C ≦ 1.25
Endurance	After 2000 hours' application of rated voltage at 105°C, capacitors meet the specified value for life characteristics listed at right.
Damp Heat	After 1000 hours' application of rated voltage at 60°C 90%RH, capacitors meet the specified value for life characteristics listed at right.
Resistance to Soldering Heat	To comply with recommended conditions for reflow soldering. Pre-heating shall be done at 150 to 200°C and for 60 to 180 sec. Peak temp. is 265°C, within 10 sec. Measurement for solder temperature profile shall be made at a point on the terminal nearest where the terminals protrude through the soldering side of PC board.
Marking	Navy blue print on the case top

Endurance:

Capacitance change	Within ± 20% of initial value (※3)
tan δ	150% or less of the initial specified value
ESR (※1)	150% or less of the initial specified value
Leakage current (※2)	Initial specified value or less

Damp Heat:

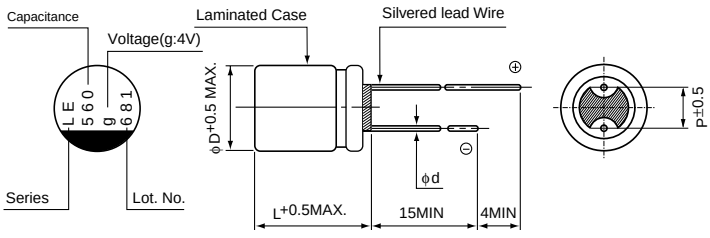
Capacitance change	Within ± 20% of initial value (※3)
tan δ	150% or less of the initial specified value
ESR (※1)	150% or less of the initial specified value
Leakage current (※2)	Initial specified value or less

Resistance to Soldering Heat:

Capacitance change	Within ± 10% of initial value (※3)
tan δ	130% or less of the initial specified value
ESR (※1)	130% or less of the initial specified value
Leakage current (※2)	Initial specified value or less

※1 ESR measurements should be made at a point on the terminal nearest the end seal of the capacitor.
※2 Conditioning : If there is doubt about the measured result, measurement should be made again after the rated voltage is applied for 120 minutes at the temperature of 105°C.
※3 Initial value : The value before test of examination of resistance to soldering.

■Dimensions



(mm)

Size	φ8×9L	φ8×12L	φ10×13L
φD	8.0	8.0	10.0
L	8.5	11.5	12.5
P	3.5	3.5	5.0
φd	0.6	0.6	0.6

Please refer to page 20 about the end seal configulation.

Voltage

V	2.5	4	6.3
Code	e	g	j

Type numbering system (Example : 4V 560µF)

1	2	3	4	5	6	7	8	9	10	11	12
P	L	E	0	G	5	6	1	M	C	O	1

Size code

Configuration

φD	Code
8×9	CO
8×12	DO
10×13	DO

Capacitance tolerance (±20%)
Rated Capacitance (560µF)
Rated voltage (4V)
Series name
Type

● Dimension table in next page.

LE series

■Standard ratings

Rated Voltage (V) Code	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD × L (mm)	tan δ	Leakage Current (μA)	ESR (mΩ) (at 100kHz 20°C)	Rated ripple (mArms)	Part Number
2.5 (0E)	2.8	560	8 × 9	0.08	280	5	6000	PLE0E561MCO1
		820	▲ 8 × 9	0.08	410	5	6300	PLE0E821MCO6
		820	8 × 12	0.08	410	5	6600	PLE0E821MDO1
		1000	10 × 13	0.08	500	5	7100	PLE0E102MDO1
		1500	10 × 13	0.08	750	5	7300	PLE0E152MDO1
4 (0G)	4.6	560	8 × 9	0.08	448	5	6000	PLE0G561MCO1
		680	8 × 12	0.08	544	5	6500	PLE0G681MDO1
		820	10 × 13	0.08	656	5	7000	PLE0G821MDO1
		1200	10 × 13	0.08	960	5	7200	PLE0G122MDO1
6.3 (0J)	7.2	470	8 × 12	0.08	592	5	6400	PLE0J471MDO1
		680	10 × 13	0.08	857	5	6700	PLE0J681MDO1
		820	10 × 13	0.08	1033	5	6800	PLE0J821MDO1

Rated Ripple (mArms) at 105°C 100kHz

▲: In this case, [6] will be put at 12th digit of type numbering system.

- Taping specifications are given in page 21.
- Please refer to page 3 for the minimum order quantity.