

LE series Radial Lead Type, Ultra-low ESR



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



Specifications

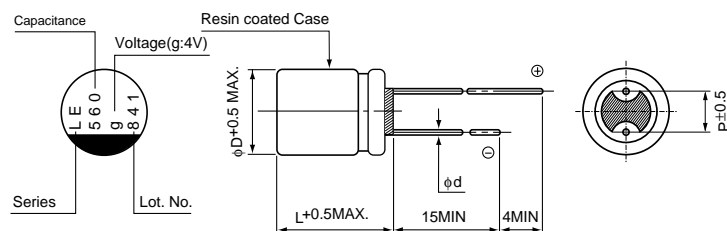
| Item | Performance Characteristics | | |
|--|--|-----------------------|---|
| Category Temperature Range | -55 to +105°C | | |
| Rated Voltage Range | 2.5 to 6.3V | | |
| Rated Capacitance Range | 470 to 1500μF | | |
| Capacitance Tolerance | ± 20% at 120Hz, 20°C | | |
| Tangent of loss angle (tan δ) | Less than or equal to the specified value at 120Hz, 20°C | | |
| ESR (※ 1) | Less than or equal to the specified value at 100kHz, 20°C | | |
| Leakage Current (※ 2) | Less than or equal to the specified value. After 2 minutes' application of rated voltage at 20°C | | |
| Temperature Characteristics (Max.Impedance Ratio) | Z+105°C / Z+20°C ≤ 1.25 (100kHz) Z-55°C / Z+20°C ≤ 1.25 | | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C. | Capacitance change | Within ± 20% of the initial capacitance value (※ 3) |
| | | tan δ | 150% or less than the initial specified value |
| | | ESR (※ 1) | 150% or less than the initial specified value |
| | | Leakage current (※ 2) | Less than or equal to the initial specified value |
| Damp Heat (Steady State) | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90% RH. | Capacitance change | Within ± 20% of the initial capacitance value (※ 3) |
| | | tan δ | 150% or less than the initial specified value |
| | | ESR (※ 1) | 150% or less than the initial specified value |
| | | Leakage current (※ 2) | Less than or equal to the initial specified value |
| Resistance to Soldering Heat | After soldering the capacitor under the soldering conditions prescribed here as preheat at 150 to 200°C for 60 to 180 seconds and peak temperature at 265°C for 10 seconds or less, the capacitor shall meet the specifications listed at right, provided that its temperature profile is measured at both of terminal ends facing the soldering side. | Capacitance change | Within ± 10% of the initial capacitance value (※ 3) |
| | | tan δ | 130% or less than the initial specified value |
| | | ESR (※ 1) | 130% or less than the initial specified value |
| | | Leakage current (※ 2) | Less than or equal to the initial specified value |
| Marking | Navy blue print on the case top | | |

※ 1 ESR should be measured at both of the terminal ends closest to the capacitor body.

※ 2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

※ 3 Initial value : The value before test of examination of resistance to soldering.

Dimensions



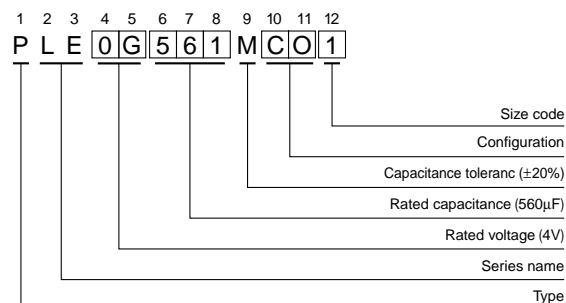
| Size | φ8 × 9L | φ8 × 12L | φ10 × 13L |
|------|---------|----------|-----------|
| φD | 8.0 | 8.0 | 10.0 |
| L | 8.5 | 11.5 | 12.5 |
| P | 3.5 | 3.5 | 5.0 |
| φd | 0.6 | 0.6 | 0.6 |

Voltage

| V | 2.5 | 4 | 6.3 |
|------|-----|---|-----|
| Code | e | g | j |

Please refer to page 20 about the end seal configuration.

Type numbering system (Example : 4V 560μF)



LE series

■Standard Ratings

| Rated Voltage (V) Code | Surge Voltage (V) | Rated Capacitance (μ F) | Case Size ϕ D \times L (mm) | $\tan \delta$ | Leakage Current (μ A) | ESR (m Ω) (at 100kHz 20°C) | Rated Ripple (mA _{rms}) | Part Number |
|------------------------------|----------------------|---------------------------------|---------------------------------------|---------------|-------------------------------|---------------------------------------|--------------------------------------|--------------|
| 2.5 (0E) | 2.8 | 560 | 8 \times 9 | 0.08 | 280 | 5 | 6100 | PLE0E561MCO1 |
| | | 820 | ▲ 8 \times 9 | 0.08 | 410 | 5 | 6300 | PLE0E821MCO6 |
| | | 820 | 8 \times 12 | 0.08 | 410 | 5 | 6600 | PLE0E821MDO1 |
| | | 1000 | 10 \times 13 | 0.08 | 500 | 5 | 7100 | PLE0E102MDO1 |
| | | 1500 | 10 \times 13 | 0.08 | 750 | 5 | 7300 | PLE0E152MDO1 |
| 4 (0G) | 4.6 | 560 | 8 \times 9 | 0.08 | 448 | 5 | 6000 | PLE0G561MCO1 |
| | | 680 | 8 \times 12 | 0.08 | 544 | 5 | 6500 | PLE0G681MDO1 |
| | | 820 | 10 \times 13 | 0.08 | 656 | 5 | 7000 | PLE0G821MDO1 |
| | | 1200 | 10 \times 13 | 0.08 | 960 | 5 | 7200 | PLE0G122MDO1 |
| 6.3 (0J) | 7.2 | 470 | 8 \times 12 | 0.08 | 592 | 5 | 6400 | PLE0J471MDO1 |
| | | 680 | 10 \times 13 | 0.08 | 857 | 5 | 6700 | PLE0J681MDO1 |
| | | 820 | 10 \times 13 | 0.08 | 1033 | 5 | 6800 | PLE0J821MDO1 |

Rated ripple current (mA_{rms}) at 105°C 100kHz

No marked, [1] will be put at 12th digit of type numbering system.

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

- Taping specifications are given in page 20, 21, 22.
- Please refer to page 3 for the minimum order quantity.