

LV series Radial Lead Type, Long Life Assurance



- High voltage (to 100V), Low ESR, High ripple current.
- Long life of 3000 hours at 105°C.
- Radial lead type:
 - Lead free flow soldering condition correspondence.
- Compliant to the RoHS directive (2002/95/EC).

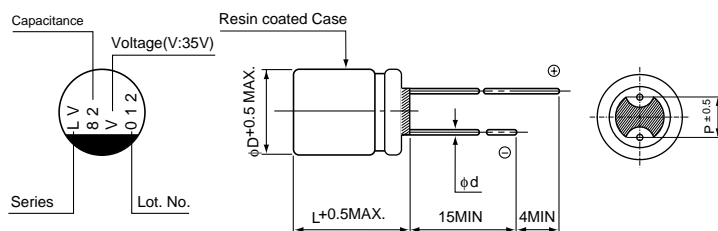


Specifications

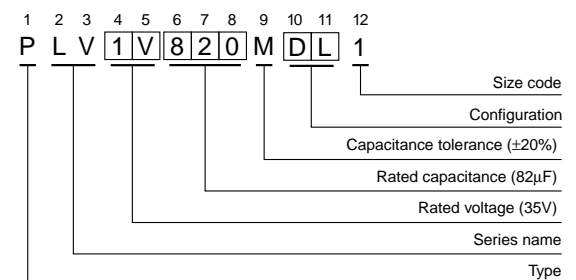
| Item | Performance Characteristics | | | | | | | | | |
|---|--|--|--------------------|---|-------|---|-----------|---|-----------------------|---|
| Category Temperature Range | -55 to +105°C | | | | | | | | | |
| Rated Voltage Range | 16 to 100V | | | | | | | | | |
| Rated Capacitance Range | 6.8 to 470μF | | | | | | | | | |
| 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) | $Z+105^{\circ}\text{C} / Z+20^{\circ}\text{C} \leq 1.25$ (100kHz) $Z-55^{\circ}\text{C} / Z+20^{\circ}\text{C} \leq 1.25$ | | | | | | | | | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 3000 hours at 105°C. | <table border="1"> <tr><td>Capacitance change</td><td>Within ± 20% of the initial capacitance value (※ 3)</td></tr> <tr><td>tan δ</td><td>150% or less than the initial specified value</td></tr> <tr><td>ESR (※ 1)</td><td>150% or less than the initial specified value</td></tr> <tr><td>Leakage current (※ 2)</td><td>Less than or equal to the initial specified value</td></tr> </table> | 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 |
| 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. | <table border="1"> <tr><td>Capacitance change</td><td>Within ± 20% of the initial capacitance value (※ 3)</td></tr> <tr><td>tan δ</td><td>150% or less than the initial specified value</td></tr> <tr><td>ESR (※ 1)</td><td>150% or less than the initial specified value</td></tr> <tr><td>Leakage current (※ 2)</td><td>Less than or equal to the initial specified value</td></tr> </table> | 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 |
| 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. | <table border="1"> <tr><td>Capacitance change</td><td>Within ± 10% of the initial capacitance value (※ 3)</td></tr> <tr><td>tan δ</td><td>130% or less than the initial specified value</td></tr> <tr><td>ESR (※ 1)</td><td>130% or less than the initial specified value</td></tr> <tr><td>Leakage current (※ 2)</td><td>Less than or equal to the initial specified value</td></tr> </table> | 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 |
| 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



Type numbering system (Example : 35V 82μF)



(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 |

| Voltage | 16 | 20 | 25 | 35 | 50 | 63 | 80 | 100 |
|---------|----|----|----|----|----|----|----|-----|
| Code | C | D | E | V | H | J | K | 2A |

Please refer to page 20 about the end seal configuration.

● Dimension table in next page.



■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 |
|------------------------|-------------------|------------------------|-----------------------|-------|----------------------|---------------------------|----------------------|--------------|
| 16 (1C) | 18.4 | 220 | 8 × 9 | 0.12 | 704 | 26 | 2100 | PLV1C221MCL1 |
| | | 270 | 8 × 12 | 0.12 | 864 | 24 | 2500 | PLV1C271MDL1 |
| | | 470 | 10 × 13 | 0.12 | 1504 | 23 | 2900 | PLV1C471MDL1 |
| 20 (1D) | 23.0 | 150 | 8 × 9 | 0.12 | 600 | 27 | 2000 | PLV1D151MCL1 |
| | | 220 | 8 × 12 | 0.12 | 880 | 25 | 2400 | PLV1D221MDL1 |
| | | 330 | 10 × 13 | 0.12 | 1320 | 24 | 2800 | PLV1D331MDL1 |
| 25 (1E) | 28.7 | 120 | 8 × 9 | 0.12 | 600 | 28 | 2000 | PLV1E121MCL1 |
| | | 150 | 8 × 12 | 0.12 | 750 | 26 | 2400 | PLV1E151MDL1 |
| | | 270 | 10 × 13 | 0.12 | 1350 | 25 | 2800 | PLV1E271MDL1 |
| 35 (1V) | 40.2 | 56 | 8 × 9 | 0.12 | 392 | 29 | 1900 | PLV1V560MCL1 |
| | | 82 | 8 × 12 | 0.12 | 574 | 27 | 2300 | PLV1V820MDL1 |
| | | 150 | 10 × 13 | 0.12 | 1050 | 26 | 2700 | PLV1V151MDL1 |
| 50 (1H) | 57.5 | 33 | 8 × 9 | 0.12 | 330 | 32 | 1900 | PLV1H330MCL1 |
| | | 39 | 8 × 12 | 0.12 | 390 | 29 | 2200 | PLV1H390MDL1 |
| | | 68 | 10 × 13 | 0.12 | 680 | 28 | 2600 | PLV1H680MDL1 |
| 63 (1J) | 72.4 | 22 | 8 × 9 | 0.12 | 277 | 35 | 1800 | PLV1J220MCL1 |
| | | 27 | 8 × 12 | 0.12 | 340 | 33 | 2100 | PLV1J270MDL1 |
| | | 47 | 10 × 13 | 0.12 | 592 | 29 | 2600 | PLV1J470MDL1 |
| 80 (1K) | 92 | 10 | 8 × 9 | 0.12 | 160 | 40 | 1700 | PLV1K100MCL1 |
| | | 12 | 8 × 12 | 0.12 | 192 | 38 | 1900 | PLV1K120MDL1 |
| | | 22 | 10 × 13 | 0.12 | 352 | 35 | 2300 | PLV1K220MDL1 |
| 100 (2A) | 115 | 6.8 | 8 × 9 | 0.12 | 136 | 45 | 1600 | PLV2A6R8MCL1 |
| | | 10 | 8 × 12 | 0.12 | 200 | 42 | 1800 | PLV2A100MDL1 |
| | | 18 | 10 × 13 | 0.12 | 360 | 38 | 2200 | PLV2A180MDL1 |

Rated ripple current (mArms) at 105°C 100kHz

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

Данный компонент на территории Российской Федерации

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<http://moschip.ru/get-element>

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