

**PLG**

Radial Lead Type, Higher Capacitance



- Higher Capacitance, 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 (2011/65/EU,(EU)2015/863).

Products which are scheduled to be discontinued.  
Not recommended for new designs.

**PLG****PLF**

### ■ Specifications

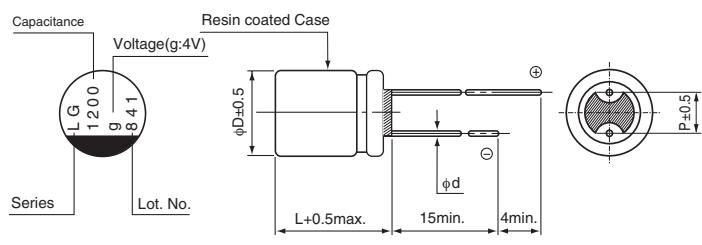
| Item   | Performance Characteristics  |  |                    |  |               |   |          |   |                      |   |
|--|--|--|--------------------|--|---------------|---|----------|---|----------------------|---|
| Category Temperature Range                           | -55 to +105°C  |  |                    |  |               |   |          |   |                      |   |
| Rated Voltage Range                                  | 2.5 to 16V   |  |                    |  |               |   |          |   |                      |   |
| Rated Capacitance Range                              | 330 to 3900μF  |  |                    |  |               |   |          |   |                      |   |
| Capacitance Tolerance                                | ±20% at 120Hz, 20°C  |  |                    |  |               |   |          |   |                      |   |
| Tangent of loss angle ( $\tan \delta$ )              | 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<br>(Max.Impedance Ratio) | $Z(+105^\circ\text{C}) / Z(+20^\circ\text{C}) \leq 1.25$ (100kHz)<br>$Z(-55^\circ\text{C}) / Z(+20^\circ\text{C}) \leq 1.25$   |  |                    |  |               |   |          |   |                      |   |
| Endurance  | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 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><math>\tan \delta</math></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) | $\tan \delta$ | 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)   |  |                    |  |               |   |          |   |                      |   |
| $\tan \delta$  | 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<br>(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><math>\tan \delta</math></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) | $\tan \delta$ | 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)   |  |                    |  |               |   |          |   |                      |   |
| $\tan \delta$  | 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<br>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><math>\tan \delta</math></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) | $\tan \delta$ | 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)   |  |                    |  |               |   |          |   |                      |   |
| $\tan \delta$  | 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



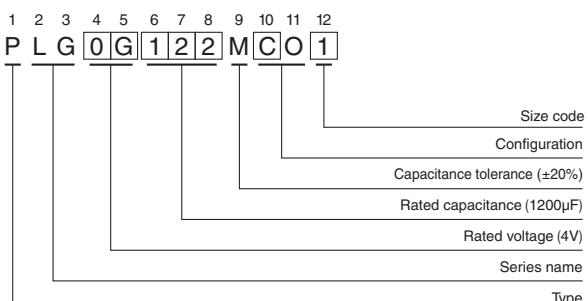
| Size | φ8 × 9L | φ8 × 12L | φ10 × 13L |
|------|---------|----------|-----------|
| φD   | 8.0     | 8.0      | 10.0      |
| L    | 8.5     | 11.5     | 12.5      |
| P    | 3.5     | 3.5      | 5.0       |
| ød   | 0.6     | 0.6      | 0.6       |

#### Voltage

|      |     |   |     |    |    |
|------|-----|---|-----|----|----|
| V    | 2.5 | 4 | 6.3 | 10 | 16 |
| Code | e   | g | j   | A  | C  |

Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

### Type numbering system (Example : 4V 1200μF)



#### ● Frequency coefficient of rated ripple current

|             |       |      |       |                |
|-------------|-------|------|-------|----------------|
| Frequency   | 120Hz | 1kHz | 10kHz | 100kHz or more |
| Coefficient | 0.05  | 0.30 | 0.70  | 1.00           |

● Dimension table in next page.

**PLG**

## ■ Dimensions

| Rated Voltage<br>(V)<br>Code | Surge Voltage<br>(V) | Rated Capacitance<br>( $\mu$ F) | Case Size<br>$\phi$ D × L (mm) | $\tan \delta$ | Leakage Current<br>( $\mu$ A)<br>(at 20°C after<br>2 minutes) | ESR<br>(mΩ)<br>(20°C/100kHz) | Rated Ripple<br>(mA rms)<br>(105°C/100kHz) | Part Number  |
|------------------------------|----------------------|---------------------------------|--------------------------------|---------------|---|------------------------------|--|--------------|
| 2.5<br>(0E)                  | 2.8                  | 1800                            | 8 × 9                          | 0.08          | 900   | 9                            | 6000                                       | PLG0E182MCO1 |
|                              |                      | 2200                            | 8 × 12                         | 0.08          | 1100  | 8                            | 6700                                       | PLG0E222MDO1 |
|                              |                      | 2700                            | 10 × 13                        | 0.08          | 1350  | 8                            | 5560                                       | PLG0E272MDO1 |
|                              |                      | 3900                            | 10 × 13                        | 0.08          | 1950  | 8                            | 7000                                       | PLG0E392MDO1 |
| 4<br>(0G)                    | 4.6                  | 1200                            | 8 × 9                          | 0.08          | 960   | 9                            | 5900                                       | PLG0G122MCO1 |
|                              |                      | 1800                            | 8 × 12                         | 0.08          | 1440  | 9                            | 6500                                       | PLG0G182MDO1 |
|                              |                      | 2700                            | 10 × 13                        | 0.08          | 2160  | 8                            | 6900                                       | PLG0G272MDO1 |
| 6.3<br>(0J)                  | 7.2                  | 820                             | 8 × 9                          | 0.08          | 1033  | 9                            | 5700                                       | PLG0J821MCO1 |
|                              |                      | 1200                            | 8 × 12                         | 0.08          | 1512  | 9                            | 6100                                       | PLG0J122MDO1 |
|                              |                      | 1500                            | 10 × 13                        | 0.08          | 1890  | 9                            | 6300                                       | PLG0J152MDO1 |
|                              |                      | 1800                            | 10 × 13                        | 0.08          | 2268  | 8                            | 6600                                       | PLG0J182MDO1 |
| 10<br>(1A)                   | 11.5                 | 560                             | 8 × 9                          | 0.08          | 1120  | 11                           | 5100                                       | PLG1A561MCO1 |
|                              |                      | 820                             | 8 × 12                         | 0.08          | 1640  | 10                           | 5800                                       | PLG1A821MDO1 |
|                              |                      | 1200                            | 10 × 13                        | 0.08          | 2400  | 9                            | 6200                                       | PLG1A122MDO1 |
| 16<br>(1C)                   | 18.4                 | 330                             | 8 × 9                          | 0.08          | 1056  | 13                           | 4700                                       | PLG1C331MCO1 |
|                              |                      | 470                             | 8 × 12                         | 0.08          | 1504  | 11                           | 5400                                       | PLG1C471MDO1 |
|                              |                      | 820                             | 10 × 13                        | 0.08          | 2624  | 11                           | 5600                                       | PLG1C821MDO1 |

- For formed lead or taped product specifications and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.