

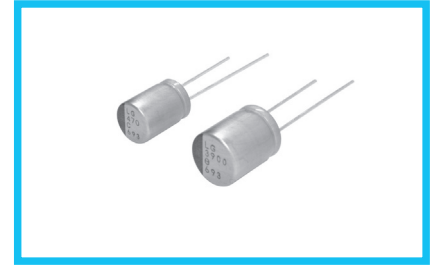
# PLG

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).

**PLG**



## Specifications

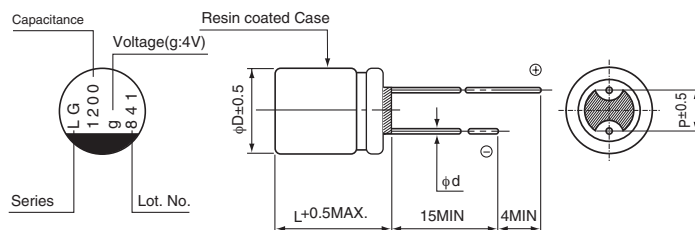
| Item                                              | Performance Characteristics                                                                                                                                                                                                                                                                                                                            |                       |                                                     |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------|
| 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 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)<br>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

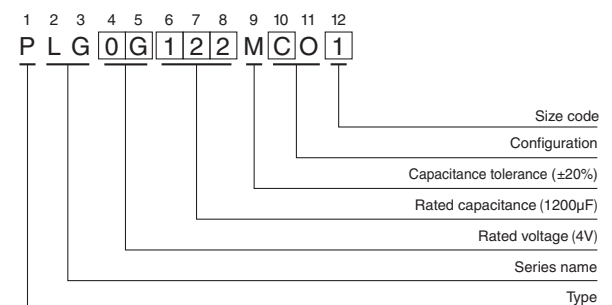


|      | (mm)    |          |           |
|------|---------|----------|-----------|
| Size | φ8 × 9L | φ8 × 12L | φ10 × 13L |
| φD   | 8.0     | 8.0      | 10.0      |
| L    | 8.5     | 11.5     | 12.5      |
| P    | 3.5     | 3.5      | 5.0       |
| φd   | 0.6     | 0.6      | 0.6       |

### Voltage

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

## 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           |

Please refer to page 20 about the end seal configuration.

• Dimension table in next page.

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## ■ Dimensions

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

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

- Please refer to page 20, 21, 22 about the formed or taped product spec.
- Please refer to page 3 for the minimum order quantity.