

PCK

Chip Type, Ultra-low ESR



- Ultra-low ESR, Higher Capacitance, High ripple current.
- Load life of 2000 hours at 105°C.
- SMD type : Lead free reflow soldering condition at 260°C peak correspondence.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

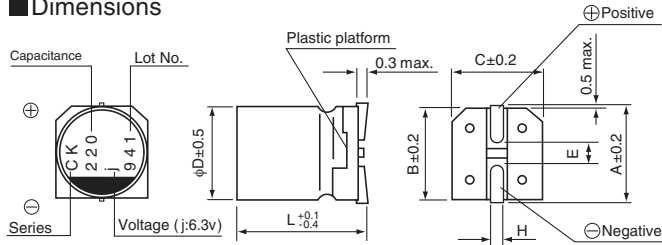


Specifications

| Item | Performance Characteristics | | |
|---|--|-----------------------|---|
| Category Temperature Range | -55 to +105°C | | |
| Rated Voltage Range | 2.5 to 6.3V | | |
| Rated Capacitance Range | 220 to 2200µF | | |
| 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 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, the capacitor shall meet the specifications listed at right. Pre-heating shall be done at 150 to 200°C and for 60 to 180 sec. The duration for over +230°C temperature at capacitor surface shall not exceed 60 seconds. In case peak temperature is 250°C or less, reflow soldering shall be two times maximum. In case peak temperature is 260°C or less, reflow soldering shall be once. Measurement for solder temperature profile shall be made at the capacitor top. | 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 where the terminals protrude through the plastic platform.
- ※ 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.

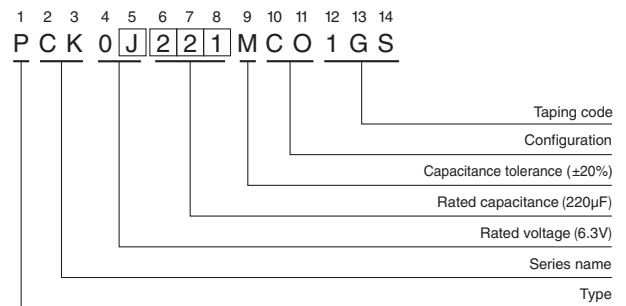
Dimensions



| | (mm) | | | |
|------|------------|------------|------------|------------|
| Size | φ6.3 × 6L | φ8 × 7L | φ10 × 8L | φ10 × 10L |
| φD | 6.3 | 8.0 | 10.0 | 10.0 |
| L | 5.9 | 6.9 | 7.9 | 9.9 |
| A | 7.3 | 9.0 | 11.0 | 11.0 |
| B | 6.6 | 8.3 | 10.3 | 10.3 |
| C | 6.6 | 8.3 | 10.3 | 10.3 |
| E | 2.1 | 3.2 | 4.6 | 4.6 |
| H | 0.5 to 0.8 | 0.8 to 1.1 | 0.8 to 1.1 | 0.8 to 1.1 |

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

Type numbering system (Example : 6.3V 220µF)



| ● Frequency coefficient of rated ripple current | | | | |
|---|-------|------|-------|----------------|
| Frequency | 120Hz | 1kHz | 10kHz | 100kHz or more |
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

PCK

■ Dimensions

| Rated Voltage (V) (code) | Surge Voltage (V) | Rated Capacitance (μF) | Case Size φD × L (mm) | tan δ | Leakage Current (μA) (at 20°C after 2 minutes) | ESR (mΩ) (20°C/100kHz) | Rated Ripple (mArms) (105°C/100kHz) | Part Number |
|-----------------------------|-------------------|------------------------|--------------------------|-------|---|---------------------------|--|----------------|
| 2.5 (0E) | 2.8 | 390 | 6.3 × 6 | 0.12 | 293 | 10 | 3900 | PCK0E391MCO1GS |
| | | 560 | 8 × 7 | 0.12 | 420 | 9 | 4500 | PCK0E561MCO1GS |
| | | 680 | 8 × 7 | 0.12 | 510 | 9 | 4500 | PCK0E681MCO1GS |
| | | 1200 | 10 × 8 | 0.12 | 900 | 9 | 5000 | PCK0E122MCO1GS |
| | | 2200 | 10 × 10 | 0.12 | 1650 | 8 | 6000 | PCK0E222MCO1GS |
| 4 (0G) | 4.6 | 330 | 6.3 × 6 | 0.12 | 396 | 10 | 3900 | PCK0G331MCO1GS |
| | | 470 | 8 × 7 | 0.12 | 564 | 9 | 4500 | PCK0G471MCO1GS |
| | | 560 | 8 × 7 | 0.12 | 672 | 9 | 4500 | PCK0G561MCO1GS |
| | | 1000 | 10 × 8 | 0.12 | 1200 | 9 | 5000 | PCK0G102MCO1GS |
| | | 1800 | 10 × 10 | 0.12 | 2160 | 8 | 6000 | PCK0G182MCO1GS |
| 6.3 (0J) | 7.2 | 220 | 6.3 × 6 | 0.12 | 416 | 10 | 3900 | PCK0J221MCO1GS |
| | | 330 | 8 × 7 | 0.12 | 624 | 9 | 4500 | PCK0J331MCO1GS |
| | | 390 | 8 × 7 | 0.12 | 737 | 9 | 4500 | PCK0J391MCO1GS |
| | | 820 | 10 × 8 | 0.12 | 1550 | 9 | 5000 | PCK0J821MCO1GS |
| | | 1500 | 10 × 10 | 0.12 | 2835 | 8 | 6000 | PCK0J152MCO1GS |

• For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.