



OCRK Series

Features

- 105°C, 5,000 hours assured
- Ultra low ESR with large permissible ripple current
- RoHS Compliance



Marking color: Blue

Specifications

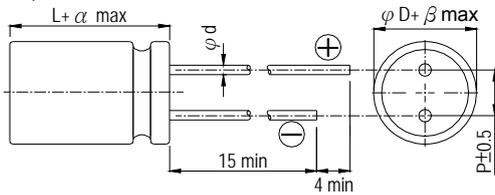
| Items | Performance | | | | | | | | | | |
|---|---|-----------------------------------|------------------------------|--------------------|-----------------------------------|--------------------|-----------------------------------|-----------------|-----------------------------------|-----------------|------------------------|
| Category Temperature Range | -55°C ~ +105°C | | | | | | | | | | |
| Capacitance Tolerance | ±20% (at 120Hz, 20°C) | | | | | | | | | | |
| Leakage Current (at 20°C)* | Rated voltage applied, after 2 minutes at 20°C. See Standard Ratings | | | | | | | | | | |
| Dissipation Factor (Tanδ at 120Hz, 20°C) | See Standard Ratings | | | | | | | | | | |
| ESR (at 100k~300k Hz, 20°C) | See Standard Ratings | | | | | | | | | | |
| Endurance | <table border="1"> <tr><td>Test Time</td><td>5,000 Hrs</td></tr> <tr><td>Capacitance Change</td><td>Within ±20% of initial value</td></tr> <tr><td>Dissipation Factor</td><td>Less than 150% of specified value</td></tr> <tr><td>ESR</td><td>Less than 150% of specified value</td></tr> <tr><td>Leakage Current</td><td>Within specified value</td></tr> </table> | Test Time | 5,000 Hrs | Capacitance Change | Within ±20% of initial value | Dissipation Factor | Less than 150% of specified value | ESR | Less than 150% of specified value | Leakage Current | Within specified value |
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| | Capacitance Change | Within ±20% of initial value | | | | | | | | | |
| | Dissipation Factor | Less than 150% of specified value | | | | | | | | | |
| | ESR | Less than 150% of specified value | | | | | | | | | |
| Leakage Current | Within specified value | | | | | | | | | | |
| *The above Specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 5,000 hours at 105°C. | | | | | | | | | | | |
| Moisture Resistance | <table border="1"> <tr><td>Test Time</td><td>1,000 Hrs</td></tr> <tr><td>Capacitance Change</td><td>Within ±20% of initial value</td></tr> <tr><td>Dissipation Factor</td><td>Less than 150% of specified value</td></tr> <tr><td>ESR</td><td>Less than 150% of specified value</td></tr> <tr><td>Leakage Current</td><td>Within specified value</td></tr> </table> | Test Time | 1,000 Hrs | Capacitance Change | Within ±20% of initial value | Dissipation Factor | Less than 150% of specified value | ESR | Less than 150% of specified value | Leakage Current | Within specified value |
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| | Capacitance Change | Within ±20% of initial value | | | | | | | | | |
| | Dissipation Factor | Less than 150% of specified value | | | | | | | | | |
| | ESR | Less than 150% of specified value | | | | | | | | | |
| Leakage Current | Within specified value | | | | | | | | | | |
| *The above Specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them at 60°C, 90 to 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment*. | | | | | | | | | | | |
| Resistance to Soldering Heat * (Please refer to page 10 for soldering conditions) | <table border="1"> <tr><td>Capacitance Change</td><td>Within ±10% of initial value</td></tr> <tr><td>Dissipation Factor</td><td>Less than 130% of specified value</td></tr> <tr><td>ESR</td><td>Less than 130% of specified value</td></tr> <tr><td>Leakage Current</td><td>Within specified value</td></tr> </table> | Capacitance Change | Within ±10% of initial value | Dissipation Factor | Less than 130% of specified value | ESR | Less than 130% of specified value | Leakage Current | Within specified value | | |
| | Capacitance Change | Within ±10% of initial value | | | | | | | | | |
| | Dissipation Factor | Less than 130% of specified value | | | | | | | | | |
| | ESR | Less than 130% of specified value | | | | | | | | | |
| Leakage Current | Within specified value | | | | | | | | | | |
| | | | | | | | | | | | |
| Ripple Current & Frequency Multipliers | <table border="1"> <tr> <th>Frequency (Hz)</th> <th>120 ≤ f < 1k</th> <th>1k ≤ f < 10k</th> <th>10k ≤ f < 100k</th> <th>100k ≤ f < 500k</th> </tr> <tr> <td>Multiplier</td> <td>0.05</td> <td>0.3</td> <td>0.7</td> <td>1.0</td> </tr> </table> | Frequency (Hz) | 120 ≤ f < 1k | 1k ≤ f < 10k | 10k ≤ f < 100k | 100k ≤ f < 500k | Multiplier | 0.05 | 0.3 | 0.7 | 1.0 |
| | Frequency (Hz) | 120 ≤ f < 1k | 1k ≤ f < 10k | 10k ≤ f < 100k | 100k ≤ f < 500k | | | | | | |
| Multiplier | 0.05 | 0.3 | 0.7 | 1.0 | | | | | | | |
| | | | | | | | | | | | |

* For any doubt about measured values, measure the leakage current again after the following voltage treatment.
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105 °C.

Diagram of Dimensions

Unit: mm

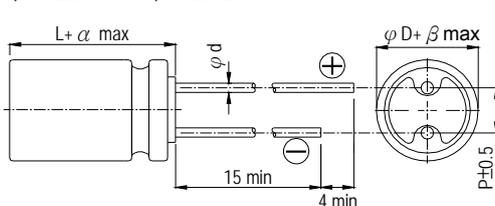
6.3 φ × 8L



Lead Spacing and Diameter

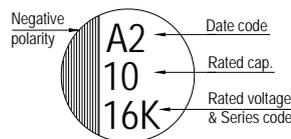
| | | | |
|----|-----|------|------|
| φD | 6.3 | 8 | 10 |
| L | 8 | 11.5 | 12.5 |
| P | 2.5 | 3.5 | 5.0 |
| φd | 0.6 | | |
| α | 1.0 | 1.5 | |
| β | 0.5 | | |

8 φ × 12L and 10 φ × 12.5L

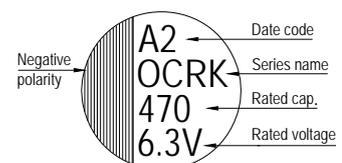


Marking

φD = 6.3



φD = 8 ~ 10





Dimension: ϕ D×L(mm)

Ripple Current: mA/rms at 100k Hz, 105°C

Standard Ratings

| W. V. (V) | Surge Voltage (V) | Capacitance (μF) | Size ϕ D×L(mm) | Tan δ (120Hz, 20°C) | L C (μA) | E S R (mΩ/at 100k ~ 300k Hz, 20°C Max) | Rated R. C. (mA/rms at 100k Hz, 105°C) |
|-----------|-------------------|------------------|---------------------|----------------------------|----------|--|--|
| 2.5V (0E) | 2.8 | 820 | 6.3 × 8 | 0.10 | 500 | 7 | 5,000 |
| 4V (0G) | 4.6 | 560 | 6.3 × 8 | 0.10 | 500 | 7 | 5,000 |
| 6.3V (0J) | 7.2 | 390 | 8 × 11.5 | 0.15 | 491 | 12 | 3,400 |
| | | 470 | 6.3 × 8 | 0.10 | 592 | 8 | 4,700 |
| | | | 8 × 11.5 | 0.15 | 592 | 12 | 3,400 |
| | | 560 | 6.3 × 8 | 0.10 | 706 | 8 | 4,700 |
| 10V (1A) | 11.5 | 820 | 10 × 12.5 | 0.15 | 1,033 | 10 | 4,000 |
| | | 330 | 8 × 11.5 | 0.12 | 660 | 14 | 3,100 |
| 16V (1C) | 18.4 | 560 | 10 × 12.5 | 0.12 | 1,360 | 12 | 3,800 |
| | | 180 | 8 × 11.5 | 0.12 | 576 | 16 | 3,000 |
| | | 330 | 10 × 12.5 | 0.12 | 1,056 | 14 | 3,600 |