# OCRU Series

Features

- 125℃, 1000 ~ 2,000 hours assured
- Ultra low ESR with large permissible ripple current
- RoHS Compliance

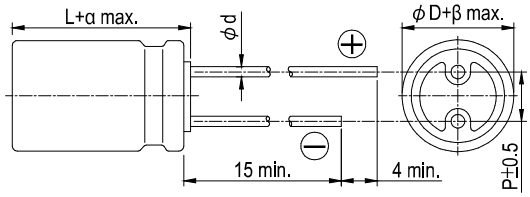

Marking color: Blue

Specifications

| Items | Performance | |
|---|---|---|
| Category Temperature Range | -55℃ ~ +125℃ | |
| Capacitance Tolerance | ±20% | (at 120Hz, 20℃) |
| Leakage Current (at 20℃)* | Rated voltage applied, after 2 minutes at 20℃.<br>See Standard Ratings | |
| Tanδ (at 120Hz, 20℃) | See Standard Ratings | |
| ESR (at 100k ~ 300k Hz, 20℃) | See Standard Ratings | |
| Endurance | Test Time: 1,000 Hrs for 2.5 ~ 4V; 2,000 Hrs for 6.3~ 20V<br>Capacitance Change: Within ±20% of initial value<br>Tanδ: Less than 200% of specified value<br>ESR: Less than 200% of specified value<br>Leakage Current: Within specified value<br>* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for specified hours at 125℃. | |
| Moisture Resistance | Test Time: 1,000 Hrs<br>Capacitance Change: Within ±20% of initial value<br>Tanδ: Less than 150% of specified value<br>ESR: Less than 150% of specified value<br>Leakage Current: Within specified value<br>* The above specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them at 60℃, 90 to 95% RH for 1,000 hours. Leakage current should be tested voltage treatment*. | |
| Resistance to Soldering Heat * (Please refer to page 11 for soldering conditions) | Capacitance Change: Within ±10% of initial value<br>Tanδ: Within specified value<br>ESR: Within specified value<br>Leakage Current: Within specified value | |
| Ripple Current and Frequency Multipliers | Frequency (Hz): 120 ≦ f < 1k; 1k ≦ f < 10k; 10k ≦ f < 100k; 100k ≦ f < 500k<br>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: DC rated voltage is applied to the capacitors for 2 hours at 105 ℃.

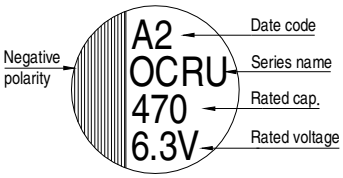
Diagram of Dimensions




Lead Spacing and Diameter
Unit: mm

| | | |
|---|---|---|
| φD | 8 | 10 |
| L | 11.5 | 12 |
| P | 3.5 | 5.0 |
| φd | 0.6 | |
| α | 1.0 | |
| β | 0.5 | |

Marking



Dimension: ϕD×L(mm)

Standard Ratings

Ripple Current: mA/rms at 100k Hz

| Rated Volt. (V) | Surge Voltage (V) | Capacitance (μF) | Size ϕD×L(mm) | Tanδ (120Hz, 20℃) | L C (μA) | E S R (mΩ/at 100k ~ 300k Hz, 20℃ max.) | Rated R. C.(mA/rms at 100k Hz) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | T ≤ 105℃ | 105℃ < T ≦ 125℃ |
| 2.5V (0E) | 2.9 | 680 | 8 × 11.5 | 0.18 | 340 | 13 | 4,520 | 1,430 |
| | | 1,200 | 10 × 12 | 0.18 | 600 | 13 | 5,440 | 1,721 |
| 4V (0G) | 4.6 | 560 | 8 × 11.5 | 0.18 | 448 | 13 | 4,520 | 1,430 |
| | | 1,200 | 10 × 12 | 0.18 | 960 | 12 | 5,440 | 1,721 |
| 6.3V (0J) | 7.2 | 470 | 8 × 11.5 | 0.15 | 592 | 15 | 4,210 | 1,332 |
| | | 820 | 10 × 12 | 0.15 | 1,033 | 12 | 5,440 | 1,721 |
| 10V (1A) | 12.0 | 330 | 8 × 11.5 | 0.12 | 660 | 16 | 3,950 | 1,250 |
| | | 560 | 10 × 12 | 0.12 | 1,120 | 13 | 5,230 | 1,655 |
| 16V (1C) | 18.0 | 180 | 8 × 11.5 | 0.12 | 576 | 18 | 3,640 | 1,151 |
| | | 330 | 10 × 12 | 0.12 | 1,056 | 16 | 4,720 | 1,493 |
| 20V (1D) | 23.0 | 100 | 8 × 11.5 | 0.15 | 400 | 24 | 3,320 | 1,050 |
| | | 150 | 10 × 12 | 0.15 | 600 | 20 | 4,320 | 1,367 |

Part Numbering System

| OCRU Series | 470μF | ±20% | 6.3V | Bulk Package | Gas Type | 8ϕ×11.5L | Pb-free and PET coating case |
|---|---|---|---|---|---|---|---|
| **ORU** | **471** | **M** | **0J** | **BK** | **-** | **0811** | |
| Series Name | Capacitance | Capacitance Tolerance | Rated Voltage | Lead Configuration & Package | Rubber Type | Case Size | Lead Wire and Coating Type |

Note: For more details, please refer to “Part Numbering System (Radial Type)” on page 13.