

## OCVU Series

### Features

- 125°C, 1,000 ~ 2,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



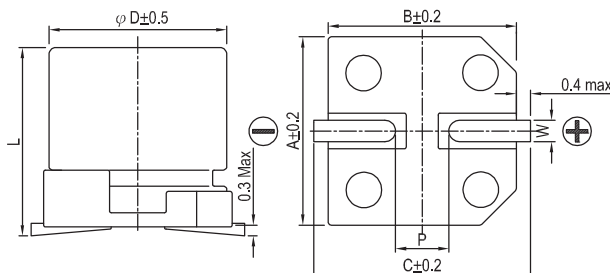
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### Specifications

| Items  | Performance  |  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|--|--|--|--|--------------------|------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|------------------------|
| Category Temperature Range   | -55°C ~ +125°C   |  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
| Capacitance Tolerance  | ±20% (at 120Hz, 20°C)  |  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
| Leakage Current (at 20°C)*   | Rated voltage applied, after 2 minutes at 20°C.<br>See Standard Ratings  |  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
| 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>1,000 Hrs for 2.5 ~ 4V;<br/>2,000 Hrs for 6.3 ~ 16V</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Less than 200% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table> | Test Time  | 1,000 Hrs for 2.5 ~ 4V;<br>2,000 Hrs for 6.3 ~ 16V | Capacitance Change | Within ±20% of initial value | Tanδ            | Less than 200% of specified value | ESR             | Less than 200% of specified value | Leakage Current | Within specified value |
|  | Test Time  | 1,000 Hrs for 2.5 ~ 4V;<br>2,000 Hrs for 6.3 ~ 16V |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | Capacitance Change   | Within ±20% of initial value                       |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | Tanδ   | Less than 200% of specified value                  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | ESR  | Less than 200% 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 specified hours at 125°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>Tanδ</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 | Tanδ            | Less than 150% of specified value | ESR             | Less than 150% of specified value | Leakage Current | Within specified value |
|  | Test Time  | 1,000 Hrs  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | Capacitance Change   | Within ±20% of initial value                       |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | Tanδ   | 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 *<br>(Please refer to page 25 for reflow soldering conditions)  | <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Within specified value</td> </tr> <tr> <td>ESR</td> <td>Within specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>  | Capacitance Change                                 | Within ±10% of initial value                       | Tanδ               | Within specified value       | ESR             | Within specified value            | Leakage Current | Within specified value            |                 |                        |
|  | Capacitance Change   | Within ±10% of initial value                       |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | Tanδ   | Within specified value                             |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  | ESR  | Within specified value                             |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
| Leakage Current  | Within specified value   |  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
| * For any doubt about measured values, measure the leakage current again after the following voltage treatment.<br>Voltage treatment: DC rated voltage is applied to the capacitors for 2 hours at 105°C.      |  |  |  |                    |                              |                 |                                   |                 |                                   |                 |                        |
| Ripple Current and Frequency Multipliers   | <table border="1"> <tr> <th>Frequency (Hz)</th> <th>120 ≤ f &lt; 1k</th> <th>1k ≤ f &lt; 10k</th> <th>10k ≤ f &lt; 100k</th> <th>100k ≤ f &lt; 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: DC rated voltage is applied to the capacitors for 2 hours at 105°C.

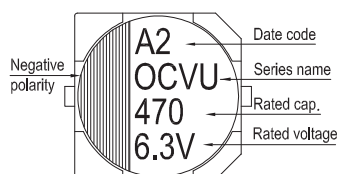
### Diagram of Dimensions



### Lead Spacing and Diameter

| φ D | L               | A    | B    | C    | W         | P ± 0.2 |
|-----|-----------------|------|------|------|-----------|---------|
| 8   | 12.0 ± 0.5      | 8.4  | 8.4  | 9.0  | 0.7 ~ 1.1 | 3.1     |
| 10  | 9.9 + 0.1/-0.3  | 10.4 | 10.4 | 11.0 | 0.7 ~ 1.3 | 4.7     |
| 10  | 12.6 + 0.1/-0.4 | 10.4 | 10.4 | 11.0 | 0.7 ~ 1.3 | 4.7     |

### Marking



Dimension:  $\phi D \times L$ (mm)  
Ripple Current: mA/rms at 100k Hz

### Standard Ratings

| W. V. (V) | Surge Voltage (V) | Capacitance ( $\mu$ F) | Size $\phi D \times L$ (mm) | Tan $\delta$ (120Hz, 20°C) | L C ( $\mu$ A) | ESR (m $\Omega$ /at 100k ~ 300k Hz, 20°C Max) | Rated R. C. (mA/rms at 100k Hz) |                        |
|-----------|-------------------|------------------------|-----------------------------|----------------------------|----------------|---|---------------------------------|------------------------|
|           |                   |                        |                             |                            |                |   | T $\leq$ 105°C                  | 105°C < T $\leq$ 125°C |
| 2.5V (0E) | 2.9               | 680                    | 8 × 12                      | 0.18                       | 340            | 13  | 4,520                           | 1,430                  |
|           |                   | 1,000                  | 10 × 9.9                    | 0.18                       | 500            | 13  | 5,200                           | 1,645                  |
|           |                   | 1,500                  | 10 × 12.6                   | 0.18                       | 750            | 13  | 5,440                           | 1,721                  |
| 4V (0G)   | 4.6               | 560                    | 8 × 12                      | 0.18                       | 448            | 13  | 4,520                           | 1,430                  |
|           |                   | 820                    | 10 × 9.9                    | 0.18                       | 656            | 13  | 5,200                           | 1,645                  |
|           |                   | 1,200                  | 10 × 12.6                   | 0.18                       | 960            | 12  | 5,440                           | 1,721                  |
| 6.3V (0J) | 7.2               | 470                    | 8 × 12                      | 0.15                       | 592            | 15  | 4,210                           | 1,332                  |
|           |                   | 560                    | 10 × 9.9                    | 0.15                       | 706            | 16  | 4,700                           | 1,487                  |
|           |                   | 820                    | 10 × 12.6                   | 0.15                       | 1,033          | 12  | 5,440                           | 1,721                  |
| 10V (1A)  | 12.0              | 330                    | 8 × 12                      | 0.15                       | 660            | 17  | 3,950                           | 1,250                  |
|           |                   | 470                    | 10 × 9.9                    | 0.15                       | 940            | 18  | 4,400                           | 1,392                  |
|           |                   | 560                    | 10 × 12.6                   | 0.15                       | 1,120          | 13  | 5,230                           | 1,655                  |
| 16V (1C)  | 18.0              | 180                    | 8 × 12                      | 0.15                       | 576            | 20  | 3,640                           | 1,151                  |
|           |                   | 220                    | 10 × 9.9                    | 0.15                       | 704            | 20  | 4,200                           | 1,330                  |
|           |                   | 330                    | 10 × 12.6                   | 0.15                       | 1,056          | 16  | 4,720                           | 1,493                  |

OP-CAP

### Part Numbering System

|                   |                   |                       |                  |                  |                 |                    |                              |
|-------------------|-------------------|-----------------------|------------------|------------------|-----------------|--------------------|------------------------------|
| OCVU Series       | 470 $\mu$ F       | $\pm 20\%$            | 6.3V             | Carrier Tape     |                 | 8 $\phi$ × 12L     | Pb-free and PET coating case |
| <b><u>OVU</u></b> | <b><u>471</u></b> | <b><u>M</u></b>       | <b><u>0J</u></b> | <b><u>IR</u></b> | <b><u>-</u></b> | <b><u>0812</u></b> |                              |
| Series Name       | Capacitance       | Capacitance Tolerance | Rated Voltage    | Package Type     | Terminal Type   | Case size          | Lead Wire and Coating Type   |

Note: For more details, please refer to "Part Numbering System (SMD Type)" on page 15.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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