

## OCVZ Series

### Features

- 105°C, 2,000 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  |                                   |                              |                    |                              |                 |                                   |                 |                                   |                 |                        |
| 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>2,000 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                         | 2,000 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   | 2,000 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 the rated voltage applied for 2,000 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>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 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  |                                   |                              |                    |                              |                 |                                   |                 |                                   |                 |                        |
|  |   |                                   |                              |                    |                              |                 |                                   |                 |                                   |                 |                        |
| 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

Unit: mm

| φ D | L              | A    | B    | C    | W         | P ± 0.2 |
|-----|----------------|------|------|------|-----------|---------|
| 5   | 5.7 ± 0.3      | 5.3  | 5.3  | 5.9  | 0.5 ~ 0.8 | 1.5     |
| 6.3 | 4.4 ± 0.2      | 6.6  | 6.6  | 7.2  | 0.5 ~ 0.8 | 2.0     |
| 6.3 | 5.9 +0.1/-0.3  | 6.6  | 6.6  | 7.2  | 0.5 ~ 0.8 | 2.0     |
| 6.3 | 7.7 ± 0.3      | 6.6  | 6.6  | 7.2  | 0.5 ~ 0.8 | 2.0     |
| 8   | 6.7 ± 0.3      | 8.4  | 8.4  | 9.0  | 0.7 ~ 1.1 | 3.1     |
| 8   | 12.0 ± 0.5     | 8.4  | 8.4  | 9.0  | 0.7 ~ 1.1 | 3.1     |
| 10  | 7.7 ± 0.3      | 10.4 | 10.4 | 11.0 | 0.7 ~ 1.3 | 4.7     |
| 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

φ D = 5 ~ 6.3



φ D = 8 ~ 10



Dimension:  $\phi D \times L$ (mm)  
Ripple Current: mA/rms at 100k Hz, 105°C

### 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) | E S R (m $\Omega$ /at 100k ~ 300k Hz, 20°C Max) | Rated R. C. (mA/rms at 100k Hz, 105°C) |
|-----------|-------------------|------------------------|-----------------------------|----------------------------|----------------|---|--|
| 2.5V (0E) | 2.9               | 180                    | 5 × 5.7                     | 0.12                       | 300            | 19  | 2,800                                  |
|           |                   | 330                    | 6.3 × 4.4                   | 0.12                       | 500            | 16  | 3,180                                  |
|           |                   | 390                    | 6.3 × 5.9                   | 0.12                       | 300            | 14  | 3,160                                  |
|           |                   | 560                    | 6.3 × 5.9                   | 0.12                       | 300            | 16  | 3,500                                  |
|           |                   |                        | 6.3 × 7.7                   | 0.12                       | 420            | 9   | 4,200                                  |
|           |                   | 680                    | 8 × 6.7                     | 0.12                       | 500            | 20  | 3,370                                  |
|           |                   | 820                    | 8 × 12                      | 0.15                       | 500            | 9   | 5,380                                  |
|           |                   | 1,200                  | 10 × 7.7                    | 0.12                       | 600            | 13  | 4,450                                  |
|           |                   | 1,500                  | 8 × 12                      | 0.15                       | 750            | 12  | 5,150                                  |
| 2,700     | 10 × 12.6         | 0.15                   | 1,350                       | 9                          | 5,600          |   |  |
| 4V (0G)   | 4.6               | 150                    | 5 × 5.7                     | 0.12                       | 300            | 20  | 2,730                                  |
|           |                   | 270                    | 6.3 × 5.9                   | 0.12                       | 300            | 15  | 3,160                                  |
|           |                   | 330                    | 6.3 × 5.9                   | 0.12                       | 300            | 15  | 3,160                                  |
|           |                   | 390                    | 6.3 × 7.7                   | 0.12                       | 468            | 9   | 4,200                                  |
|           |                   | 560                    | 8 × 6.7                     | 0.12                       | 500            | 22  | 3,220                                  |
|           |                   |                        | 8 × 12                      | 0.15                       | 500            | 9   | 5,380                                  |
|           |                   | 1,000                  | 10 × 7.7                    | 0.12                       | 800            | 14  | 4,300                                  |
|           |                   | 1,200                  | 8 × 12                      | 0.15                       | 960            | 12  | 4,700                                  |
|           |                   | 1,500                  | 8 × 12                      | 0.15                       | 1,200          | 12  | 4,700                                  |
| 2,200     | 10 × 12.6         | 0.15                   | 1,760                       | 9                          | 5,700          |   |  |
| 6.3V (0J) | 7.2               | 120                    | 5 × 5.7                     | 0.12                       | 300            | 21  | 2,660                                  |
|           |                   | 220                    | 6.3 × 4.4                   | 0.12                       | 500            | 18  | 3,000                                  |
|           |                   |                        | 6.3 × 5.9                   | 0.12                       | 300            | 15  | 3,160                                  |
|           |                   | 330                    | 6.3 × 5.9                   | 0.12                       | 415            | 17  | 3,390                                  |
|           |                   |                        | 6.3 × 7.7                   | 0.12                       | 623            | 9   | 4,200                                  |
|           |                   | 390                    | 8 × 6.7                     | 0.12                       | 491            | 22  | 3,220                                  |
|           |                   | 820                    | 8 × 12                      | 0.15                       | 1,033          | 13  | 4,700                                  |
|           |                   |                        | 10 × 7.7                    | 0.12                       | 1,033          | 14  | 4,300                                  |
| 1,500     | 10 × 12.6         | 0.15                   | 1,890                       | 10                         | 5,560          |   |  |
| 10V (1A)  | 12.0              | 68                     | 5 × 5.7                     | 0.12                       | 300            | 23  | 2,540                                  |
|           |                   | 120                    | 6.3 × 5.9                   | 0.12                       | 300            | 22  | 2,600                                  |
|           |                   | 150                    | 6.3 × 7.7                   | 0.12                       | 450            | 15  | 3,400                                  |
|           |                   | 270                    | 8 × 6.7                     | 0.12                       | 500            | 22  | 3,220                                  |
|           |                   | 470                    | 10 × 7.7                    | 0.12                       | 940            | 19  | 3,800                                  |
| 16V (1C)  | 18.0              | 39                     | 5 × 5.7                     | 0.12                       | 300            | 27  | 2,350                                  |
|           |                   |                        | 6.3 × 5.9                   | 0.12                       | 300            | 24  | 2,460                                  |
|           |                   | 68                     | 6.3 × 5.9                   | 0.12                       | 300            | 25  | 2,440                                  |
|           |                   | 100                    | 6.3 × 5.9                   | 0.12                       | 320            | 24  | 2,490                                  |
|           |                   | 150                    | 8 × 6.7                     | 0.12                       | 500            | 22  | 3,220                                  |
|           |                   | 220                    | 10 × 7.7                    | 0.12                       | 704            | 22  | 3,450                                  |
|           |                   | 270                    | 8 × 12                      | 0.15                       | 864            | 12  | 4,850                                  |
|           |                   | 330                    | 10 × 12.6                   | 0.15                       | 1,056          | 12  | 5,300                                  |
|           |                   | 470                    | 10 × 12.6                   | 0.15                       | 1,504          | 10  | 6,100                                  |
| 820       | 10 × 12.6         | 0.12                   | 2,624                       | 12                         | 5,400          |   |  |
| 1,000     | 10 × 12.6         | 0.12                   | 3,200                       | 12                         | 5,400          |   |  |

OP-CAP



Dimension:  $\phi$  D×L(mm)  
Ripple Current: mA/rms at 100k Hz, 105°C

Standard Ratings

| W. V. (V) | Surge Voltage (V) | Capacitance (μF) | Size $\phi$ D×L(mm) | Tanδ (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) |
|-----------|-------------------|------------------|---------------------|--------------------|----------|--|--|
| 20V(1D)   | 23.0              | 120              | 6.3 × 5.9           | 0.12               | 480      | 25                                     | 3,200                                  |
|           |                   | 390              | 8 × 12              | 0.12               | 1,560    | 14                                     | 4,950                                  |
|           |                   | 560              | 10 × 9.9            | 0.12               | 2,240    | 18                                     | 4,100                                  |
|           |                   |                  | 10 × 12.6           | 0.12               | 2,240    | 12                                     | 5,600                                  |
| 25V(1E)   | 29.0              | 56               | 6.3 × 5.9           | 0.12               | 280      | 30                                     | 2,800                                  |
|           |                   | 180              | 8 × 12              | 0.12               | 900      | 16                                     | 4,650                                  |
|           |                   | 220              | 10 × 9.9            | 0.12               | 1,100    | 20                                     | 3,800                                  |
|           |                   | 330              | 10 × 12.6           | 0.12               | 1,650    | 14                                     | 5,000                                  |
| 35V(1V)   | 40.0              | 22               | 6.3 × 5.9           | 0.12               | 154      | 35                                     | 2,600                                  |
|           |                   | 82               | 8 × 12              | 0.12               | 574      | 20                                     | 4,000                                  |
|           |                   | 120              | 10 × 12.6           | 0.12               | 840      | 18                                     | 4,400                                  |

OP-CAP

Part Numbering System

|                   |                   |                       |                  |                  |                  |                              |
|-------------------|-------------------|-----------------------|------------------|------------------|------------------|------------------------------|
| OCVZ Series       | 820μF             | ±20%                  | 6.3V             | Carrier Tape     | 10 $\phi$ × 7.7L | Pb-free and PET coating case |
| <b><u>OVZ</u></b> | <b><u>821</u></b> | <b><u>M</u></b>       | <b><u>0J</u></b> | <b><u>TR</u></b> | <b><u>-</u></b>  | <b><u>1008</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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