

## OVS Series

### Features

- 105°C, 20,000 hours assured
- Ultra low ESR, solid capacitors of SMD type
- RoHS Compliance



Marking color: Blue

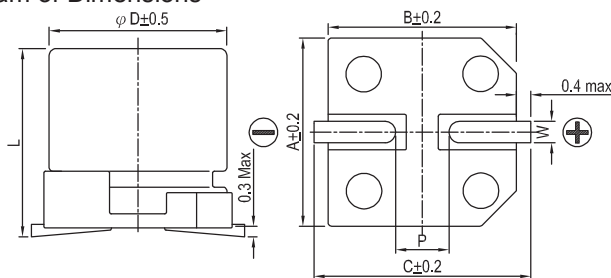
### Specifications

|                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------|----------------|-----------------|--------------------|------------------------------|--------------|----------------|-----------------|--------------------|-----------------------------------|-----|-----|-----|------|-----------------------------------|--|--|--|-----------------|-----------------------------------|--|--|--|-----------------|------------------------|--|--|--|
| Items                                                                                                                                                                                                        | Performance                                                                                                                                                                                                                                                                                                                                                                                       |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Category Temperature Range                                                                                                                                                                                   | -55℃ ~ +105℃                                                                                                                                                                                                                                                                                                                                                                                      |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Capacitance Tolerance                                                                                                                                                                                        | ±20% (at 120Hz, 20℃)                                                                                                                                                                                                                                                                                                                                                                              |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Leakage Current (at 20℃)*                                                                                                                                                                                    | Rated voltage applied, after 2 minutes at 20℃.<br>See Standard Ratings                                                                                                                                                                                                                                                                                                                            |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Tanδ (at120Hz, 20℃)                                                                                                                                                                                          | See Standard Ratings                                                                                                                                                                                                                                                                                                                                                                              |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| ESR (at 100k ~ 300k Hz, 20℃)                                                                                                                                                                                 | See Standard Ratings                                                                                                                                                                                                                                                                                                                                                                              |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Endurance                                                                                                                                                                                                    | <table><tr><td>Test Time</td><td colspan="4">20,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="4">Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>ESR</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="4">Within specified value</td></tr></table> |                                   |              |                |                 | Test Time          | 20,000 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                                                                                                                                                                                                                                                                                                                                                                                         | 20,000 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℃ after the rated voltage applied for 20,000 hours at 105℃.                                                              |                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Moisture Resistance                                                                                                                                                                                          | <table><tr><td>Test Time</td><td colspan="4">1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="4">Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>ESR</td><td colspan="4">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="4">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℃ after subjecting them at 60℃, 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><tr><td>Capacitance Change</td><td colspan="4">Within ±10% of initial value</td></tr><tr><td>Tanδ</td><td colspan="4">Less than 130% of specified value</td></tr><tr><td>ESR</td><td colspan="4">Less than 130% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="4">Within specified value</td></tr></table>                                                           |                                   |              |                |                 | Capacitance Change | Within ±10% of initial value |              |                |                 | Tanδ               | 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      |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
|                                                                                                                                                                                                              | Tanδ                                                                                                                                                                                                                                                                                                                                                                                              | Less than 130% of specified value |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
|                                                                                                                                                                                                              | ESR                                                                                                                                                                                                                                                                                                                                                                                               | Less than 130% of specified value |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
|                                                                                                                                                                                                              | Leakage Current                                                                                                                                                                                                                                                                                                                                                                                   | Within specified value            |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
|                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |              |                |                 |                    |                              |              |                |                 |                    |                                   |     |     |     |      |                                   |  |  |  |                 |                                   |  |  |  |                 |                        |  |  |  |
| Ripple Current and Frequency Multipliers                                                                                                                                                                     | <table><tr><td>Frequency (Hz)</td><td>120 ≤ f &lt; 1k</td><td>1k ≤ f &lt; 10k</td><td>10k ≤ f &lt; 100k</td><td>100k ≤ f &lt; 500k</td></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

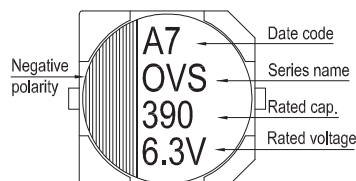
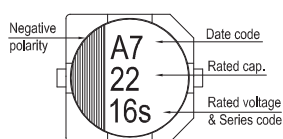
Unit: mm

| φ D | L         | A   | B   | C   | W         | P ± 0.2 |
|-----|-----------|-----|-----|-----|-----------|---------|
| 5   | 5.8 ± 0.3 | 5.3 | 5.3 | 5.9 | 0.5 ~ 0.8 | 1.5     |
| 6.3 | 5.8 ± 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     |

### Marking

φ D = 5 ~ 6.3

φ D = 8 ~ 10



## Standard Ratings

Dimension:  $\phi D \times L$ (mm)

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

| 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) |
|-----------|-------------------|------------------------|-----------------------------|----------------------------|----------------|-------------------------------------------------|----------------------------------------|
| 4V (0G)   | 4.6               | 150                    | 5 $\times$ 5.8              | 0.12                       | 120            | 25                                              | 2,150                                  |
|           |                   | 560                    | 8 $\times$ 6.7              | 0.12                       | 440            | 22                                              | 3,220                                  |
| 6.3V (0J) | 7.2               | 47                     | 5 $\times$ 5.8              | 0.12                       | 59             | 30                                              | 1,970                                  |
|           |                   | 100                    | 5 $\times$ 5.8              | 0.12                       | 126            | 20                                              | 2,150                                  |
|           |                   | 120                    | 6.3 $\times$ 5.8            | 0.12                       | 151            | 22                                              | 2,570                                  |
|           |                   | 220                    | 6.3 $\times$ 5.8            | 0.12                       | 277            | 22                                              | 2,570                                  |
|           |                   | 390                    | 8 $\times$ 6.7              | 0.12                       | 491            | 22                                              | 3,220                                  |
| 10V(1A)   | 12.0              | 33                     | 5 $\times$ 5.8              | 0.12                       | 66             | 70                                              | 1,100                                  |
|           |                   | 68                     | 5 $\times$ 5.8              | 0.12                       | 136            | 30                                              | 1,970                                  |
|           |                   | 120                    | 6.3 $\times$ 5.8            | 0.12                       | 240            | 27                                              | 2,320                                  |
| 16V(1C)   | 18.4              | 22                     | 5 $\times$ 5.8              | 0.12                       | 70             | 90                                              | 1,060                                  |
|           |                   | 39                     | 5 $\times$ 5.8              | 0.12                       | 125            | 35                                              | 1,820                                  |
|           |                   | 39                     | 6.3 $\times$ 5.8            | 0.12                       | 125            | 37                                              | 2,050                                  |
|           |                   | 68                     | 6.3 $\times$ 5.8            | 0.12                       | 218            | 30                                              | 2,200                                  |
|           |                   | 82                     | 8 $\times$ 6.7              | 0.12                       | 262            | 30                                              | 2,760                                  |
|           |                   | 120                    | 8 $\times$ 6.7              | 0.12                       | 384            | 27                                              | 2,900                                  |

## Part Numbering System

|             |             |                       |               |              |               |                        |                              |
|-------------|-------------|-----------------------|---------------|--------------|---------------|------------------------|------------------------------|
| OVS Series  | 120 $\mu$ F | $\pm$ 20%             | 16V           | Carrier Tape |               | 8 $\phi$ $\times$ 6.7L | Pb-free and PET coating case |
| <b>OVS</b>  | <b>121</b>  | <b>M</b>              | <b>1C</b>     | <b>TR</b>    | <b>-</b>      | <b>0806</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 «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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