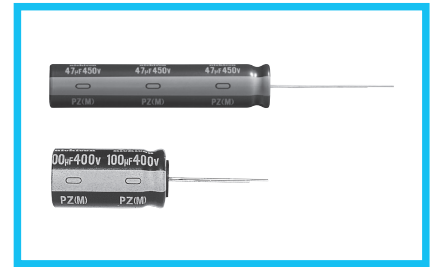


# UPZ

High Voltage, Miniature-sized



- High ripple current.
- Load life of 2000 hours at 105°C.
- Suited for ballast applications.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



## Specifications

| Item                          | Performance Characteristics   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
|-------------------------------|---|--------------------|--|-------|---|-----------------|---|------------------------|-----------------|------|------|------|------|
| Category Temperature Range    | -25 to +105°C   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Rated Voltage Range           | 200 to 450V   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Rated Capacitance Range       | 18 to 470μF   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Capacitance Tolerance         | ±20% at 120Hz, 20°C   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Leakage Current               | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.04CV+100 (μA).  |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz at 20°C   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
|                               | <table border="1"> <tr> <td>Rated voltage (V)</td> <td>200</td> <td>250</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.12</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> </tr> </table>   | Rated voltage (V)  | 200  | 250   | 400   | 420             | 450   | tan δ (MAX.)           | 0.12            | 0.15 | 0.15 | 0.20 | 0.20 |
| Rated voltage (V)             | 200   | 250                | 400  | 420   | 450   |                 |   |                        |                 |      |      |      |      |
| tan δ (MAX.)                  | 0.12  | 0.15               | 0.15   | 0.20  | 0.20  |                 |   |                        |                 |      |      |      |      |
| Stability at Low Temperature  | Measurement frequency : 120Hz   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
|                               | <table border="1"> <tr> <td>Rated voltage (V)</td> <td>200</td> <td>250</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>Impedance ratio (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>3</td> <td>8</td> <td>8</td> <td>8</td> </tr> </table>   | Rated voltage (V)  | 200  | 250   | 400   | 420             | 450   | Impedance ratio (MAX.) | Z-25°C / Z+20°C | 3    | 3    | 8    | 8    |
| Rated voltage (V)             | 200   | 250                | 400  | 420   | 450   |                 |   |                        |                 |      |      |      |      |
| Impedance ratio (MAX.)        | Z-25°C / Z+20°C   | 3                  | 3  | 8     | 8   | 8               |   |                        |                 |      |      |      |      |
| Endurance                     | <p>The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 105°C, the peak voltage shall not exceed the rated voltage.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table> | Capacitance change | Within ±20% of the initial capacitance value | tan δ | 200% or less than the initial specified value | Leakage current | Less than or equal to the initial specified value |                        |                 |      |      |      |      |
| Capacitance change            | Within ±20% of the initial capacitance value  |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| tan δ                         | 200% or less than the initial specified value   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Leakage current               | Less than or equal to the initial specified value   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Shelf Life                    | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |
| Marking                       | Printed with white color letter on dark brown sleeve.   |                    |  |       |   |                 |   |                        |                 |      |      |      |      |

## Radial Lead Type



## Pencil - shaped Type



• Please refer to page 20 about the end seal configuration.

## Type numbering system (Example : 200V 220μF)



### ※ Configuration

|            |                                     |    |
|------------|-------------------------------------|----|
| Size code  | Blank, 6                            | 9  |
| φ D        | Pb-free leadwire Pb-free PET sleeve |    |
| 10         | PD                                  | ND |
| 12.5 to 18 | HD                                  | NY |

Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

- Dimension table in next page.

## UPZ

### ■ Dimensions

| Cap.( $\mu$ F) | V<br>Code | 200         |      | 400         |     | 420         |     | 450                         |              |
|----------------|-----------|-------------|------|-------------|-----|-------------|-----|-----------------------------|--------------|
|                |           | 2D          |      | 2G          |     | W6          |     | 2W                          |              |
| 18             | 180       |             |      |             |     |             |     | 10 × 31.5                   | 180          |
| 22             | 220       |             |      |             |     | 10 × 31.5   | 200 |                             |              |
| 27             | 270       |             |      | 10 × 31.5   | 240 |             |     |                             |              |
| 33             | 330       |             |      |             |     |             |     | 12.5 × 31.5                 | 280          |
| 39             | 390       |             |      |             |     | 12.5 × 31.5 | 310 | 12.5 × 35.5                 | 320          |
| 47             | 470       |             |      | 12.5 × 31.5 | 370 | 12.5 × 35.5 | 360 | 12.5 × 40                   | 380          |
| 56             | 560       |             |      | 12.5 × 35.5 | 420 | 12.5 × 40   | 430 | 16 × 31.5                   | 440          |
| 68             | 680       |             |      | 12.5 × 40   | 480 | 16 × 31.5   | 510 | 16 × 35.5                   | 490          |
| 82             | 820       | 10 × 31.5   | 400  |             |     | 16 × 35.5   | 570 | 16 × 40                     | 550          |
|                |           |             |      | ▲ 18 × 31.5 | 550 |             |     |                             |              |
| 100            | 101       |             |      | 16 × 31.5   | 580 | 16 × 40     | 610 | 18 × 35.5                   | 650          |
|                |           | ▲ 18 × 31.5 | 610  |             |     |             |     |                             |              |
| 120            | 121       |             |      | 16 × 35.5   | 670 | 18 × 35.5   | 660 | 18 × 40                     | 740          |
|                |           | ▲ 18 × 31.5 | 670  |             |     |             |     |                             |              |
| 150            | 151       | 12.5 × 31.5 | 620  | 16 × 40     | 770 | 18 × 40     | 710 |                             |              |
|                |           |             |      | ▲ 18 × 35.5 | 770 |             |     |                             |              |
| 180            | 181       | 12.5 × 35.5 | 700  | 18 × 40     | 880 |             |     |                             |              |
| 220            | 221       | 12.5 × 40   | 800  |             |     |             |     |                             |              |
| 270            | 271       | 16 × 31.5   | 870  |             |     |             |     |                             |              |
| 330            | 331       | 16 × 35.5   | 1010 |             |     |             |     |                             |              |
|                |           | ▲ 18 × 31.5 | 1010 |             |     |             |     |                             |              |
| 390            | 391       | 16 × 40     | 1130 |             |     |             |     |                             |              |
|                |           | ▲ 18 × 35.5 | 1120 |             |     |             |     |                             |              |
| 470            | 471       | 18 × 40     | 1270 |             |     |             |     | Case size $\phi$ D × L (mm) | Rated ripple |

Rated ripple current (mA rms) at 105°C 120Hz

▲ : In this case, [6] will be put at 12th digit of type numbering system.

### Pencil-shaped Type

| Cap.( $\mu$ F) | V<br>Code | 200         |      | 250         |      | 400         |     | 450                         |              |
|----------------|-----------|-------------|------|-------------|------|-------------|-----|-----------------------------|--------------|
|                |           | 2D          |      | 2E          |      | 2G          |     | 2W                          |              |
| 33             | 330       |             |      |             |      |             |     | ● 10 × 40                   | 360          |
| 47             | 470       |             |      |             |      | ● 10 × 40   | 435 | ● 10 × 50                   | 450          |
| 56             | 560       |             |      |             |      | ● 10 × 50   | 520 |                             |              |
| 82             | 820       |             |      | ● 10 × 40   | 610  |             |     | ● 12.5 × 50                 | 730          |
| 100            | 101       |             |      |             |      | ● 12.5 × 50 | 770 |                             |              |
| 120            | 121       | ● 10 × 40   | 680  | ● 10 × 50   | 740  |             |     |                             |              |
| 150            | 151       | ● 10 × 50   | 830  |             |      |             |     |                             |              |
| 220            | 221       |             |      | ● 12.5 × 50 | 1140 |             |     |                             |              |
| 270            | 271       | ● 12.5 × 50 | 1265 |             |      |             |     | Case size $\phi$ D × L (mm) | Rated ripple |

Rated ripple current (mA rms) at 105°C 120Hz

● : In this case, [9] will be put at 12th digit of type numbering system.

### ● Frequency coefficient of rated ripple current

| V          | 60Hz | 120Hz | 500Hz | 1kHz | 10kHz or more |
|------------|------|-------|-------|------|---------------|
| 200・250    | 0.80 | 1.00  | 1.20  | 1.30 | 1.40          |
| 400 to 450 | 0.80 | 1.00  | 1.25  | 1.40 | 1.50          |



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

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.