

# ALUMINUM ELECTROLYTIC CAPACITORS

# UKA

For High Grade Audio Equipment,  
Wide Temperature Range.



**UKA**



- 105°C high quality capacitors for audio equipment.
- Selected materials to create superior acoustic sound.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.



## Specifications

| Item                          | Performance Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                             |       |                                               |                 |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------|-------|-----------------------------------------------|-----------------|---------------------------------------------------|----|------------------------|-----------------|------|------|------|------|------|--|-----------------|----|---|---|---|---|
| Category Temperature Range    | -55 to +105°C                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                             |       |                                               |                 |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| Rated Voltage Range           | 6.3 to 50V                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                             |       |                                               |                 |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| Rated Capacitance Range       | 22 to 22000 µF                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                                             |       |                                               |                 |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| 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 0.03CV or 4 (µA), whichever is greater.<br>After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is greater.                                                                                                                                                                                                  |                    |                                             |       |                                               |                 |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| Tangent of loss angle (tan δ) | <table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.30</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> </tr> </table> <p>Measurement frequency : 120Hz at 20°C<br/>For capacitors with more than 1000µF, add 0.02 for every increase of 1000µF.</p>                                                                       | Rated voltage (V)  | 6.3                                         | 10    | 16                                            | 25              | 35                                                | 50 | tan δ (MAX.)           | 0.30            | 0.26 | 0.22 | 0.18 | 0.16 | 0.14 |  |                 |    |   |   |   |   |
| Rated voltage (V)             | 6.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10                 | 16                                          | 25    | 35                                            | 50              |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| tan δ (MAX.)                  | 0.30                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.26               | 0.22                                        | 0.18  | 0.16                                          | 0.14            |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| Stability at Low Temperature  | <table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Impedance ratio (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> </tr> <tr> <td></td> <td>Z-40°C / Z+20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> </tr> </table> <p>Measurement frequency : 120Hz</p>                                                    | Rated voltage (V)  | 6.3                                         | 10    | 16                                            | 25              | 35                                                | 50 | Impedance ratio (MAX.) | Z-25°C / Z+20°C | 5    | 4    | 3    | 2    | 2    |  | Z-40°C / Z+20°C | 10 | 8 | 6 | 4 | 3 |
| Rated voltage (V)             | 6.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10                 | 16                                          | 25    | 35                                            | 50              |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| Impedance ratio (MAX.)        | Z-25°C / Z+20°C                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5                  | 4                                           | 3     | 2                                             | 2               |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
|                               | Z-40°C / Z+20°C                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10                 | 8                                           | 6     | 4                                             | 3               |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |
| Endurance                     | <p>The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C.</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 black color letter on pearl blue sleeve.                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                             |       |                                               |                 |                                                   |    |                        |                 |      |      |      |      |      |  |                 |    |   |   |   |   |

## Radial Lead Type



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

Type numbering system (Example : 16V 1000µF)



## Dimensions

| Cap (µF) | V   | 6.3  |             | 10   |             | 16   |             | 25   |             | 35   |           | 50   |             |      |
|----------|-----|------|-------------|------|-------------|------|-------------|------|-------------|------|-----------|------|-------------|------|
|          |     | Code | 0J          | 45   | 1A          | 45   | 1C          | 54   | 1E          | 58   | 1V        | 61   | 1H          | 68   |
| 22       | 220 |      | 5 × 11      | 45   | 5 × 11      | 45   | 5 × 11      | 54   | 5 × 11      | 58   | 5 × 11    | 61   | 5 × 11      | 68   |
| 33       | 330 |      | 5 × 11      | 55   | 5 × 11      | 58   | 5 × 11      | 65   | 5 × 11      | 68   | 5 × 11    | 75   | 5 × 11      | 90   |
| 47       | 470 |      | 5 × 11      | 65   | 5 × 11      | 68   | 5 × 11      | 79   | 5 × 11      | 83   | 5 × 11    | 93   | 6.3 × 11    | 115  |
| 100      | 101 |      | 5 × 11      | 95   | 5 × 11      | 105  | 5 × 11      | 115  | 6.3 × 11    | 140  | 6.3 × 11  | 150  | 8 × 11.5    | 190  |
| 220      | 221 |      | 6.3 × 11    | 160  | 6.3 × 11    | 175  | 6.3 × 11    | 190  | 8 × 11.5    | 240  | 8 × 11.5  | 260  | 10 × 12.5   | 300  |
| 330      | 331 |      | 6.3 × 11    | 195  | 8 × 11.5    | 240  | 8 × 11.5    | 265  | 8 × 11.5    | 290  | 10 × 12.5 | 350  | 10 × 16     | 410  |
| 470      | 471 |      | 8 × 11.5    | 270  | 8 × 11.5    | 280  | 8 × 11.5    | 315  | 10 × 12.5   | 380  | 10 × 16   | 460  | 12.5 × 20   | 530  |
| 1000     | 102 |      | 10 × 12.5   | 420  | 10 × 16     | 500  | 10 × 16     | 560  | 10 × 20     | 680  | 12.5 × 25 | 860  | 12.5 × 31.5 | 1040 |
| 2200     | 222 |      | 10 × 20     | 710  | 12.5 × 20   | 810  | 12.5 × 20   | 920  | 12.5 × 31.5 | 1200 | 12.5 × 40 | 1260 | 16 × 35.5   | 1470 |
| 3300     | 332 |      | 12.5 × 20   | 910  | 12.5 × 25   | 1050 | 12.5 × 31.5 | 1270 | 12.5 × 35.5 | 1400 | 16 × 35.5 | 1610 | 18 × 35.5   | 1770 |
| 4700     | 472 |      | 12.5 × 25   | 1120 | 12.5 × 35.5 | 1300 | 12.5 × 35.5 | 1480 | 16 × 31.5   | 1710 | 18 × 35.5 | 1910 |             |      |
| 6800     | 682 |      | 12.5 × 35.5 | 1360 | 12.5 × 40   | 1570 | 16 × 31.5   | 1780 | 18 × 35.5   | 2040 |           |      |             |      |
| 10000    | 103 |      | 12.5 × 40   | 1650 | 16 × 35.5   | 1890 | 18 × 35.5   | 2060 |             |      |           |      |             |      |
| 15000    | 153 |      | 16 × 35.5   | 2010 | 18 × 40     | 2400 |             |      |             |      |           |      |             |      |
| 22000    | 223 |      | 18 × 40     | 2350 |             |      |             |      |             |      |           |      |             |      |

Rated ripple current (mArms) at 105°C 120Hz

## Frequency coefficient of rated ripple current

| Cap.(µF)      | Frequency | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz or more |
|---------------|-----------|------|-------|-------|------|---------------|
| 22 to 47      |           | 0.75 | 1.00  | 1.35  | 1.57 | 2.00          |
| 100 to 470    |           | 0.80 | 1.00  | 1.23  | 1.34 | 1.50          |
| 1000 to 22000 |           | 0.85 | 1.00  | 1.10  | 1.13 | 1.15          |

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



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

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- 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;
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- 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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