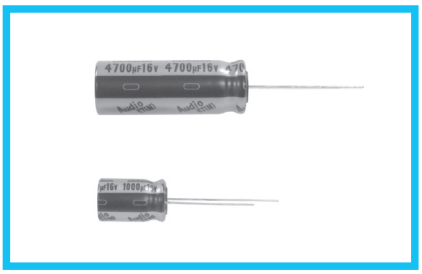
nichicon

# UKT

For General Audio Equipment, Wide Temperature Range.

For Audio Use | Anti-Solvent Feature

UKA
High Sound Quality
UKT
High Sound Quality
UVZ

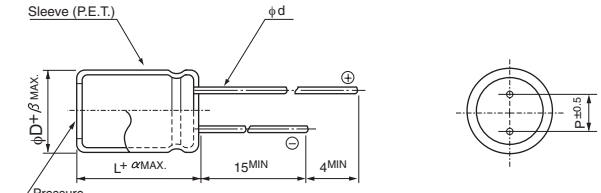


- 105°C standard for audio equipment.
- Compliant to the RoHS directive (2011/65/EU).
- AEC-Q200 compliant. Please contact us for details.

## ■Specifications

| Item | Performance Characteristics |
|---|---|
| Category Temperature Range | −55 to +105°C |
| Rated Voltage Range | 6.3 to 50V |
| Rated Capacitance Range | 2.2 to 33000μF |
| 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) | Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50<br>tan δ (MAX.): 0.30 / 0.26 / 0.22 / 0.18 / 0.16 / 0.14<br>Measurement frequency : 120Hz at 20°C<br>For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF |
| Stability at Low Temperature | Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50<br>Impedance ratio ZT / Z20 (MAX.): Z−25°C / Z+20°C: 5 / 4 / 3 / 2 / 2 / 2; Z−40°C / Z+20°C: 10 / 8 / 6 / 4 / 3 / 3<br>Measurement frequency : 120Hz |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.<br>Capacitance change: Within ±20% of the initial capacitance value<br>tan δ: 200% or less than the initial specified value<br>Leakage current: Less than or equal to the initial specified value |
| Shelf Life | After storing the capacitors under no load at 105°C tor 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




(mm)

| φD | 5 | 6.3 | 8 | 10 | 12.5(25L or smaller) | 12.5(31.5L or greater) | 16 | 18 | 20 | 22 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 5.0 | 7.5 | 7.5 | 10.0 | 10.0 | 12.5 |
| φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 | 1.0 | 1.0 | 1.0 |
| β | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.0 | 1.0 |
| α | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 |

## Type numbering system (Example : 16V 1000μF)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| U | K | T | 1 | C | 1 | 0 | 2 | M | P | D |

Configuration※
Capacitance tolerance (±20%)
Rated capacitance (1000μF)
Rated voltage (16V)
Series name
Type

※Configuration

| φ D | Pb-free leadwire<br>Pb-free PET sleeve |
|---|---|
| 5 | DD |
| 6.3 | ED |
| 8 . 10 | PD |
| 12.5 to 18 | HD |
| 20 to 25 | RD |

## ■Dimensions

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

| Cap.(μF) \ V | code | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0J | | 1A | | 1C | | 1E | | 1V | | 1H | |
| **2.2** | 2R2 | | | | | | | | | | | 5 × 11 | 20 |
| **3.3** | 3R3 | | | | | | | | | | | 5 × 11 | 25 |
| **4.7** | 4R7 | | | | | | | 5 × 11 | 25 | 5 × 11 | 28 | 5 × 11 | 30 |
| **10** | 100 | | | | | 5 × 11 | 35 | 5 × 11 | 36 | 5 × 11 | 41 | 5 × 11 | 46 |
| **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 | 20 × 40 | 2100 |
| **6800** | 682 | 12.5 × 35.5 | 1360 | 12.5 × 40 | 1570 | 16 × 31.5 | 1780 | 18 × 35.5 | 2040 | 20 × 40 | 2150 | 22 × 50 | 2500 |
| **10000** | 103 | 12.5 × 40 | 1650 | 16 × 35.5 | 1890 | 18 × 35.5 | 2060 | 20 × 40 | 2150 | 22 × 50 | 2650 | | |
| **15000** | 153 | 16× 35.5 | 2010 | 18 × 40 | 2400 | 20 × 40 | 2430 | 22 × 50 | 2750 | | | Case size φD × L (mm) | Rated ripple |
| **22000** | 223 | 18× 40 | 2350 | 22 × 40 | 2650 | 22 × 50 | 3000 | | | | | | |
| **33000** | 333 | 22× 50 | 2800 | 25 × 50 | 2880 | | | | | | | | |

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

## ● Frequency coefficient of rated ripple current

| Cap.(μF) \ Frequency | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz or more |
|---|---|---|---|---|---|
| 2.2 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 33000 | 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.