

UKT For General Audio Equipment,
Wide Temperature Range.



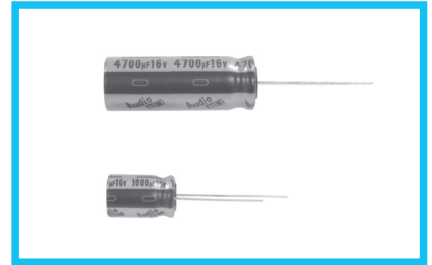
UKA

High Sound
Quality

UKT

High Sound
Quality

UVZ



- 105°C standard for audio equipment.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

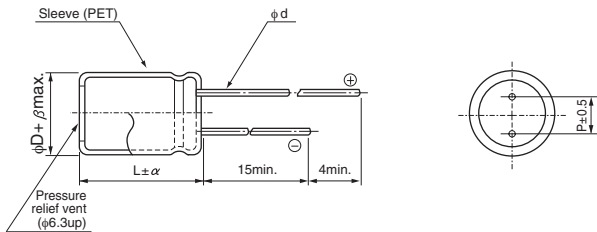
Valued marked with an ※ in the dimension table are scheduled to be discontinued and are not recommended for new designs.

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. 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><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>						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	Measurement frequency : 120Hz at 20°C									
	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																								
For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF																														
Stability at Low Temperature	<table><tr><td colspan="2">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 rowspan="2">Impedance ratio (max.)</td><td colspan="2">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 colspan="2">Z(-40°C) / Z(+20°C)</td><td>10</td><td>8</td><td>6</td><td>4</td><td>3</td></tr></table>						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	Measurement frequency : 120Hz
	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	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.				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.																													

※ I : Leakage Current (µA), C : Rated Capacitance (µF), V : Rated Voltage (V)

Radial Lead Type



	5	6.3	8	10	12.5	16	18	20	22	25
φD	5	6.3	8	10	12.5	16	18	20	22	25
P	2.0	2.5	3.5	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	1.0	1.0	1.0
β	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	2.0	2.0

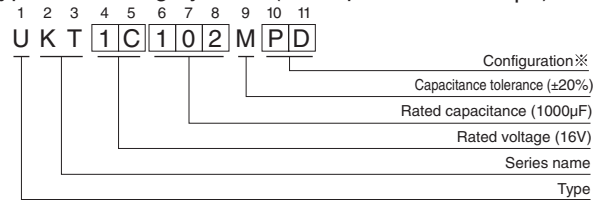
※ In case L>25 for φ12.5 (D) case sizes,
lead diameter φ0.8 (d) will be applied.

- Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

Frequency coefficient of rated ripple current

Cap. (µF)	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

Type numbering system (Example : 16V 1000µF)



※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
5	DD
6.3	ED
8 · 10	PD
12.5 to 18	HD
20 to 25	RD

UKT

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D×L (mm)	tan δ	Leakage Current (μ A)		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
6.3 (0J)	22	5×11	0.30	4.158	3	45	※UKT0J220MDD
	33	5×11	0.30	6.237	3	55	※UKT0J330MDD
	47	5×11	0.30	8.883	3	65	※UKT0J470MDD
	100	5×11	0.30	18.9	6.3	95	※UKT0J101MDD
	220	6.3×11	0.30	41.58	13.86	160	※UKT0J221MED
	330	6.3×11	0.30	62.37	20.79	195	※UKT0J331MED
	470	8×11.5	0.30	88.83	29.61	270	UKT0J471MPD
	1000	10×12.5	0.30	189	63	420	UKT0J102MPD
	2200	10×20	0.32	415.8	138.6	710	UKT0J222MPD
	3300	12.5×20	0.34	623.7	207.9	910	UKT0J332MHD
	4700	12.5×25	0.36	888.3	296.1	1120	UKT0J472MHD
	6800	12.5×35.5	0.40	1285.2	428.4	1360	UKT0J682MHD
	10000	12.5×40	0.48	1890	630	1650	UKT0J103MHD
	15000	16×35.5	0.58	2835	945	2010	UKT0J153MHD
	22000	18×40	0.72	4158	1386	2350	UKT0J223MHD
	33000	22×50	0.94	6237	2079	2800	※UKT0J333MRD
10 (1A)	22	5×11	0.26	6.6	3	45	※UKT1A220MDD
	33	5×11	0.26	9.9	3.3	58	※UKT1A330MDD
	47	5×11	0.26	14.1	4.7	68	※UKT1A470MDD
	100	5×11	0.26	30	10	105	※UKT1A101MDD
	220	6.3×11	0.26	66	22	175	※UKT1A221MED
	330	8×11.5	0.26	99	33	240	UKT1A331MPD
	470	8×11.5	0.26	141	47	280	UKT1A471MPD
	1000	10×16	0.26	300	100	500	UKT1A102MPD
	2200	12.5×20	0.28	660	220	810	UKT1A222MHD
	3300	12.5×25	0.30	990	330	1050	UKT1A332MHD
	4700	12.5×35.5	0.32	1410	470	1300	UKT1A472MHD
	6800	12.5×40	0.36	2040	680	1570	UKT1A682MHD
	10000	16×35.5	0.44	3000	1000	1890	UKT1A103MHD
	15000	18×40	0.54	4500	1500	2400	UKT1A153MHD
	22000	22×40	0.68	6600	2200	2650	※UKT1A223MRD
	33000	25×50	0.90	9900	3300	2880	※UKT1A333MRD
16 (1C)	10	5×11	0.22	4.8	3	35	※UKT1C100MDD
	22	5×11	0.22	10.56	3.52	54	※UKT1C220MDD
	33	5×11	0.22	15.84	5.28	65	※UKT1C330MDD
	47	5×11	0.22	22.56	7.52	79	※UKT1C470MDD
	100	5×11	0.22	48	16	115	※UKT1C101MDD
	220	6.3×11	0.22	105.6	35.2	190	※UKT1C221MED
	330	8×11.5	0.22	158.4	52.8	265	UKT1C331MPD
	470	8×11.5	0.22	225.6	75.2	315	UKT1C471MPD
	1000	10×16	0.22	480	160	560	UKT1C102MPD
	2200	12.5×20	0.24	1056	352	920	UKT1C222MHD
	3300	12.5×30.5	0.26	1584	528	1270	UKT1C332MHD
	4700	12.5×35.5	0.28	2256	752	1480	UKT1C472MHD
	6800	16×30.5	0.32	3264	1088	1780	UKT1C682MHD
	10000	18×35.5	0.40	4800	1600	2060	UKT1C103MHD
	15000	20×40	0.50	7200	2400	2430	※UKT1C153MRD
	22000	22×50	0.64	10560	3520	3000	※UKT1C223MRD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.

UKT

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
25 (1E)	4.7	5×11	0.18	4	3	25	※UKT1E4R7MDD
	10	5×11	0.18	7.5	3	36	※UKT1E100MDD
	22	5×11	0.18	16.5	5.5	58	※UKT1E220MDD
	33	5×11	0.18	24.75	8.25	68	※UKT1E330MDD
	47	5×11	0.18	35.25	11.75	83	※UKT1E470MDD
	100	6.3×11	0.18	75	25	140	※UKT1E101MED
	220	8×11.5	0.18	165	55	240	UKT1E221MPD
	330	8×11.5	0.18	247.5	82.5	290	UKT1E331MPD
	470	10×12.5	0.18	352.5	117.5	380	UKT1E471MPD
	1000	10×20	0.18	750	250	680	UKT1E102MPD
	2200	12.5×30.5	0.20	1650	550	1200	UKT1E222MHD
	3300	12.5×35.5	0.22	2475	825	1400	UKT1E332MHD
	4700	16×30.5	0.24	3525	1175	1710	UKT1E472MHD
	6800	18×35.5	0.28	5100	1700	2040	UKT1E682MHD
	10000	20×40	0.36	7500	2500	2150	※UKT1E103MRD
	15000	22×50	0.46	11250	3750	2750	※UKT1E153MRD
35 (1V)	4.7	5×11	0.16	4.935	3	28	※UKT1V4R7MDD
	10	5×11	0.16	10.5	3.5	41	※UKT1V100MDD
	22	5×11	0.16	23.1	7.7	61	※UKT1V220MDD
	33	5×11	0.16	34.65	11.55	75	※UKT1V330MDD
	47	5×11	0.16	49.35	16.45	93	※UKT1V470MDD
	100	6.3×11	0.16	105	35	150	※UKT1V101MED
	220	8×11.5	0.16	231	77	260	UKT1V221MPD
	330	10×12.5	0.16	346.5	115.5	350	UKT1V331MPD
	470	10×16	0.16	493.5	164.5	460	UKT1V471MPD
	1000	12.5×25	0.16	1050	350	860	UKT1V102MHD
	2200	12.5×40	0.18	2310	770	1260	UKT1V222MHD
	3300	16×35.5	0.20	3465	1155	1610	UKT1V332MHD
	4700	18×35.5	0.22	4935	1645	1910	UKT1V472MHD
	6800	20×40	0.26	7140	2380	2150	※UKT1V682MRD
	10000	22×50	0.34	10500	3500	2650	※UKT1V103MRD
50 (1H)	2.2	5×11	0.14	4	3	20	※UKT1H2R2MDD
	3.3	5×11	0.14	4.95	3	25	※UKT1H3R3MDD
	4.7	5×11	0.14	7.05	3	30	※UKT1H4R7MDD
	10	5×11	0.14	15	5	46	※UKT1H100MDD
	22	5×11	0.14	33	11	68	※UKT1H220MDD
	33	5×11	0.14	49.5	16.5	90	※UKT1H330MDD
	47	6.3×11	0.14	70.5	23.5	115	※UKT1H470MED
	100	8×11.5	0.14	150	50	190	UKT1H101MPD
	220	10×12.5	0.14	330	110	300	UKT1H221MPD
	330	10×16	0.14	495	165	410	UKT1H331MPD
	470	12.5×20	0.14	705	235	530	UKT1H471MHD
	1000	12.5×30.5	0.14	1500	500	1040	UKT1H102MHD
	2200	16×35.5	0.16	3300	1100	1470	UKT1H222MHD
	3300	18×35.5	0.18	4950	1650	1770	UKT1H332MHD
	4700	20×40	0.20	7050	2350	2100	※UKT1H472MRD
	6800	22×50	0.24	10200	3400	2500	※UKT1H682MRD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.

• For formed lead or taped product specifications and minimum order quantity,
please refer to the Guidelines for Aluminum Electrolytic Capacitors.