



**THE DATASHEET OF  
UKT1V221MPD1TD**

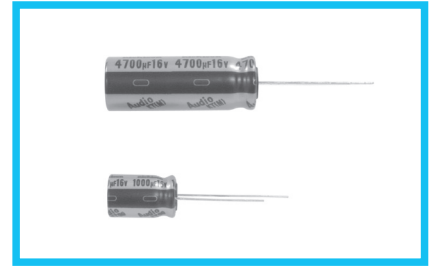


# ALUMINUM ELECTROLYTIC CAPACITORS

**UKT** For General Audio Equipment,  
Wide Temperature Range.



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

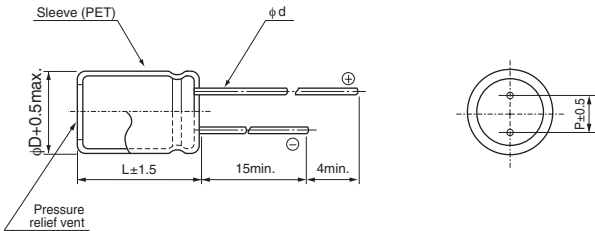


## Specifications

Item	Performance Characteristics																		
Category Temperature Range	-55 to +105°C																		
Rated Voltage Range	16 to 50V																		
Rated Capacitance Range	100 to 10000µF																		
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 (µA) . After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV (µA) .																		
Tangent of loss angle (tan δ)	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td rowspan="2">Measurement frequency : 120Hz at 20°C</td> </tr> <tr> <td>tan δ (max.)</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> </tr> </table> <p>For capacitance of more than 1000µF, add 0.02 for every increase of 1000µF</p>	Rated voltage (V)	16	25	35	50	Measurement frequency : 120Hz at 20°C	tan δ (max.)	0.22	0.18	0.16	0.14							
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Stability at Low Temperature	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td rowspan="2">Measurement frequency : 120Hz</td> </tr> <tr> <td>Impedance ratio (max.)</td> <td>Z(-25°C) / Z(+20°C)</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td></td> <td>Z(-40°C) / Z(+20°C)</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)	16	25	35	50	Measurement frequency : 120Hz	Impedance ratio (max.)	Z(-25°C) / Z(+20°C)	3	2	2	2		Z(-40°C) / Z(+20°C)	6	4	3	3
Rated voltage (V)	16	25	35	50	Measurement frequency : 120Hz														
Impedance ratio (max.)	Z(-25°C) / Z(+20°C)	3	2	2		2													
	Z(-40°C) / Z(+20°C)	6	4	3	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 1000 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												
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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



	(mm)				
φD	8	10	12.5	16	18
P	3.5	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.6 <sup>(1)</sup>	0.8	0.8

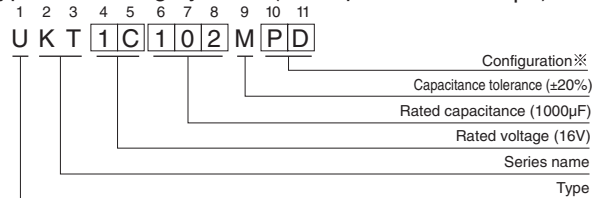
※ In case L>25 for φ12.5 (D) case sizes, lead diameter φ0.8 (d) will be applied.

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

## Frequency coefficient of rated ripple current

Cap.(µF)	Frequency				
	50Hz	120Hz	300Hz	1kHz	10kHz or more
100 to 470	0.80	1.00	1.23	1.34	1.50
1000 to 10000	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
	8 - 10	PD
	12.5 to 18	HD

● Dimension table in next page.

UKT

## ■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance ( $\mu\text{F}$ )	Case Size $\phi\text{D}\times\text{L}$ (mm)	tan $\delta$	Leakage Current ( $\mu\text{A}$ )		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
16 (1C)	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
25 (1E)	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
35 (1V)	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
	50 (1H)	100	8×11.5	0.14	150	50	190
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

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.

## Looking for pricing, stock, or lifecycle information?

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