



**THE DATASHEET OF
UVP1A470MDD1TD**

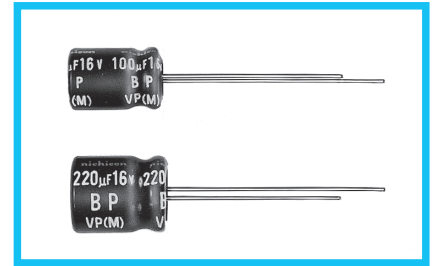
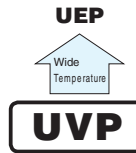


UVP

Bi-Polarized



- Standard bi-polarized series for entertainment electronics.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

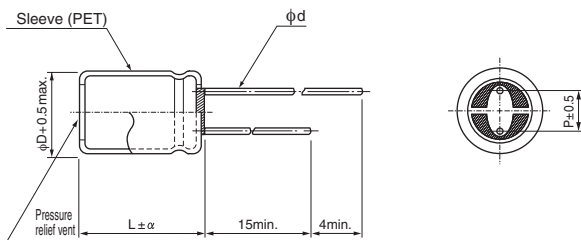


Specifications

Item	Performance Characteristics																													
Category Temperature Range	-40 to +85°C																													
Rated Voltage Range	6.3 to 100V																													
Rated Capacitance Range	10 to 6800µF																													
Capacitance Tolerance	±20% at 120Hz, 20°C																													
Leakage Current ※	After 5 minutes' application of rated voltage at 20°C, leakage current is not more than 0.03CV(µA).																													
Tangent of loss angle (tan δ)	For capacitance of more than 1000µF, add 0.02 for every increase of 1000µF. Measurement frequency : 120Hz at 20°C <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> <td>63</td> <td>100</td> </tr> <tr> <td>tan δ (max.)</td> <td>0.26</td> <td>0.24</td> <td>0.22</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	63	100	tan δ (max.)	0.26	0.24	0.22	0.20	0.16	0.14	0.12	0.10											
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Stability at Low Temperature	Measurement frequency : 120Hz <table border="1"> <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> <td>63</td> <td>100</td> </tr> <tr> <td rowspan="2">Impedance ratio (max.)</td> <td>Z(-25°C) / Z(+20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(+20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>5</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)		6.3	10	16	25	35	50	63	100	Impedance ratio (max.)	Z(-25°C) / Z(+20°C)	4	3	2	2	2	2	2	2	Z(-40°C) / Z(+20°C)	10	8	6	5	4	4	3	3
Rated voltage (V)		6.3	10	16	25	35	50	63	100																					
Impedance ratio (max.)	Z(-25°C) / Z(+20°C)	4	3	2	2	2	2	2	2																					
	Z(-40°C) / Z(+20°C)	10	8	6	5	4	4	3	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 2000 hours at 85°C with the polarity inverted every 250 hours. <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 85°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 black sleeve.																													

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

Radial Lead Type



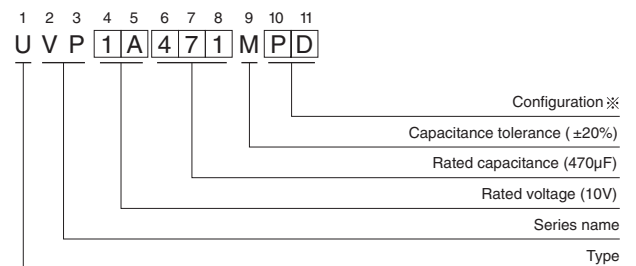
α		(mm)					
(L < 20)	1.5	φD	8	10	12.5	16	18
(L ≥ 20)	2.0	P	3.5	5.0	5.0	7.5	7.5
		φd	0.6	0.6	0.6	0.8	0.8

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

Frequency coefficient of rated ripple current

Cap.(µF) \ Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
10 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 6800	0.85	1.00	1.10	1.13	1.15

Type numbering system (Example : 10V 470µF)



※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
8 - 10	PD
12.5 to 18	HD

● Dimension table in next page.

UVP

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20°C after 5 minutes)	Rated Ripple (mArms) (85°C/120Hz)	Part Number
6.3 (0J)	220	8×11.5	0.26	41.58	215	UVP0J221MPD
	330	8×11.5	0.26	62.37	265	UVP0J331MPD
	470	10×12.5	0.26	88.83	370	UVP0J471MPD
	1000	10×20	0.26	189	650	UVP0J102MPD
	2200	12.5×25	0.28	415.8	1160	UVP0J222MHD
	3300	16×25	0.30	623.7	1570	UVP0J332MHD
	4700	16×30.5	0.32	888.3	2020	UVP0J472MHD
	6800	18×35.5	0.36	1285.2	2600	UVP0J682MHD
10 (1A)	220	8×11.5	0.24	66	215	UVP1A221MPD
	330	10×16	0.24	99	345	UVP1A331MPD
	470	10×16	0.24	141	410	UVP1A471MPD
	1000	12.5×20	0.24	300	720	UVP1A102MHD
	2200	16×25	0.26	660	1280	UVP1A222MHD
	3300	16×30.5	0.28	990	1690	UVP1A332MHD
	4700	18×35.5	0.30	1410	2160	UVP1A472MHD
16 (1C)	100	8×11.5	0.22	48	160	UVP1C101MPD
	220	10×12.5	0.22	105.6	275	UVP1C221MPD
	330	10×16	0.22	158.4	375	UVP1C331MPD
	470	10×20	0.22	225.6	485	UVP1C471MPD
	1000	12.5×25	0.22	480	855	UVP1C102MHD
	2200	16×30.5	0.24	1056	1510	UVP1C222MHD
	3300	18×35.5	0.26	1584	1980	UVP1C332MHD
25 (1E)	100	8×11.5	0.20	75	160	UVP1E101MPD
	220	10×16	0.20	165	305	UVP1E221MPD
	330	12.5×20	0.20	247.5	450	UVP1E331MHD
	470	12.5×20	0.20	352.5	540	UVP1E471MHD
	1000	16×25	0.20	750	950	UVP1E102MHD
	2200	18×35.5	0.22	1650	1620	UVP1E222MHD
35 (1V)	33	8×11.5	0.16	34.65	100	UVP1V330MPD
	47	8×11.5	0.16	49.35	120	UVP1V470MPD
	100	10×16	0.16	105	230	UVP1V101MPD
	220	12.5×20	0.16	231	410	UVP1V221MHD
	330	12.5×20	0.16	346.5	505	UVP1V331MHD
	470	12.5×25	0.16	493.5	655	UVP1V471MHD
	1000	16×30.5	0.16	1050	1140	UVP1V102MHD
50 (1H)	22	8×11.5	0.14	33	89	UVP1H220MPD
	33	8×11.5	0.14	49.5	105	UVP1H330MPD
	47	10×12.5	0.14	70.5	150	UVP1H470MPD
	100	10×20	0.14	150	265	UVP1H101MPD
	220	12.5×25	0.14	330	480	UVP1H221MHD
	330	16×25	0.14	495	650	UVP1H331MHD
	470	16×30.5	0.14	705	835	UVP1H471MHD

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.

UVP

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D \times L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 5 minutes)	Rated Ripple (mA _{rms}) (85°C/120Hz)	Part Number
63 (1J)	22	8 \times 11.5	0.12	41.58	95	UVP1J220MPD
	33	10 \times 12.5	0.12	62.37	135	UVP1J330MPD
	47	10 \times 16	0.12	88.83	180	UVP1J470MPD
	100	12.5 \times 20	0.12	189	320	UVP1J101MHD
	220	16 \times 25	0.12	415.8	575	UVP1J221MHD
	330	16 \times 30.5	0.12	623.7	655	UVP1J331MHD
	470	18 \times 35.5	0.12	888.3	965	UVP1J471MHD
100 (2A)	10	8 \times 11.5	0.10	30	71	UVP2A100MPD
	22	10 \times 16	0.10	66	135	UVP2A220MPD
	33	12.5 \times 20	0.10	99	220	UVP2A330MHD
	47	12.5 \times 20	0.10	141	240	UVP2A470MHD
	100	16 \times 25	0.10	300	425	UVP2A101MHD
	220	18 \times 35.5	0.10	660	720	UVP2A221MHD

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.

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