

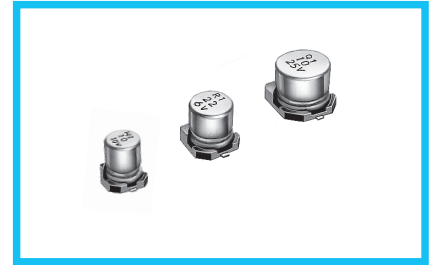
# ALUMINUM ELECTROLYTIC CAPACITORS

# UWP

5.5mmL Chip Type, Bi-Polarized



- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 Qualified. Please contact us for details.



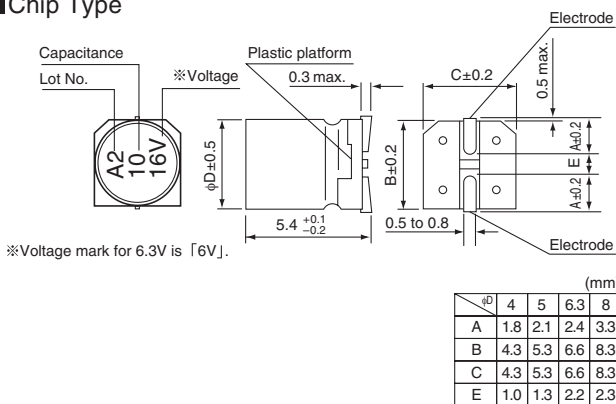
Valued marked with an ※ in the dimension table are scheduled to be discontinued and are not recommended for new designs.

## Specifications

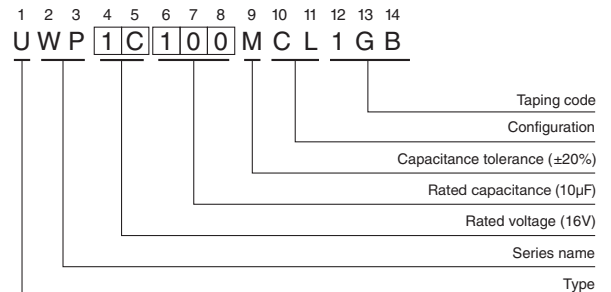
Item	Performance Characteristics																							
Category Temperature Range	-40 to +85°C																							
Rated Voltage Range	6.3 to 50V																							
Rated Capacitance Range	0.1 to 100μF																							
Capacitance Tolerance	±20% at 120Hz, 20°C																							
Leakage Current ※	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.05CV or 10 (μA) ,whichever is greater.																							
Tangent of loss angle (tan δ)	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> </tr> <tr> <td>tan δ (max.)</td> <td>0.24</td> <td>0.20</td> <td>0.17</td> <td>0.17</td> <td>0.15</td> <td>0.15</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	tan δ (max.)	0.24	0.20	0.17	0.17	0.15	0.15									
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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> </tr> <tr> <td rowspan="2">Impedance ratio</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> </tr> <tr> <td>ZT / Z20 (max.)</td> <td>Z(-40°C) / Z(+20°C)</td> <td>8</td> <td>6</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	Impedance ratio	Z(-25°C) / Z(+20°C)	4	3	2	2	2	2	ZT / Z20 (max.)	Z(-40°C) / Z(+20°C)	8	6	4	4	3
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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 85°C with the polarity inverted every 250 hours.</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 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.																							
Resistance to soldering heat	<p>The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±10% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>Less than or equal to 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 ±10% of the initial capacitance value	tan δ	Less than or equal to the initial specified value	Leakage current	Less than or equal to the initial specified value																	
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Leakage current	Less than or equal to the initial specified value																							
Marking	Black print on the case top.																							

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

## Chip Type



## Type numbering system (Example : 16V 10μF)



## Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

● Dimension table in next page.

UWP

## ■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20°C after 2 minutes)	Rated Ripple (mArms) (85°C/120Hz)	Part Number
6.3 (0J)	22	5×5.4	0.24	10	28	UWP0J220MCL1GB
	33	6.3×5.4	0.24	10.395	37	UWP0J330MCL1GB
	47	6.3×5.4	0.24	14.805	45	UWP0J470MCL1GB
	100	8×5.4	0.24	31.5	82	※UWP0J101MCL1GB
10 (1A)	10	4×5.4	0.20	10	17	UWP1A100MCL1GB
	22	6.3×5.4	0.20	11	33	UWP1A220MCL1GB
	33	6.3×5.4	0.20	16.5	41	UWP1A330MCL1GB
	47	8×5.4	0.20	23.5	61	※UWP1A470MCL1GB
16 (1C)	4.7	4×5.4	0.17	10	12	UWP1C4R7MCL1GB
	10	5×5.4	0.17	10	23	UWP1C100MCL1GB
	22	6.3×5.4	0.17	17.6	37	UWP1C220MCL1GB
	33	6.3×5.4	0.17	26.4	49	UWP1C330MCL1GB
	47	8×5.4	0.17	37.6	75	※UWP1C470MCL1GB
25 (1E)	3.3	5×5.4	0.17	10	12	UWP1E3R3MCL1GB
	4.7	5×5.4	0.17	10	16	UWP1E4R7MCL1GB
	10	6.3×5.4	0.17	12.5	27	UWP1E100MCL1GB
	22	8×5.4	0.17	27.5	50	※UWP1E220MCL1GB
	33	8×5.4	0.17	41.25	61	※UWP1E330MCL1GB
35 (1V)	2.2	4×5.4	0.15	10	8.4	UWP1V2R2MCL1GB
	3.3	5×5.4	0.15	10	16	UWP1V3R3MCL1GB
	4.7	5×5.4	0.15	10	18	UWP1V4R7MCL1GB
	10	6.3×5.4	0.15	17.5	29	UWP1V100MCL1GB
	22	8×5.4	0.15	38.5	54	※UWP1V220MCL1GB
50 (1H)	0.1	4×5.4	0.15	10	1.0	UWP1H0R1MCL1GB
	0.22	4×5.4	0.15	10	2.0	UWP1HR22MCL1GB
	0.33	4×5.4	0.15	10	2.8	UWP1HR33MCL1GB
	0.47	4×5.4	0.15	10	4.0	UWP1HR47MCL1GB
	1	4×5.4	0.15	10	8.4	UWP1H010MCL1GB
	2.2	5×5.4	0.15	10	13	UWP1H2R2MCL1GB
	3.3	5×5.4	0.15	10	17	UWP1H3R3MCL1GB
	4.7	6.3×5.4	0.15	11.75	20	UWP1H4R7MCL1GB
	10	8×5.4	0.15	25	36	※UWP1H100MCL1GB

- For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.
- Please select UUN if high C/V products are required.