

# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

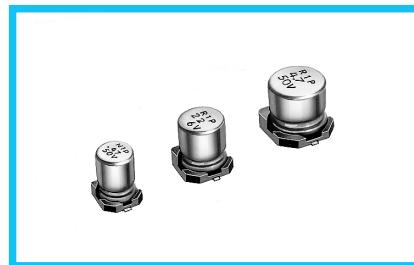
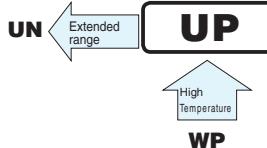
**UP**

6mmL Chip Type, Bi-Polarized

series



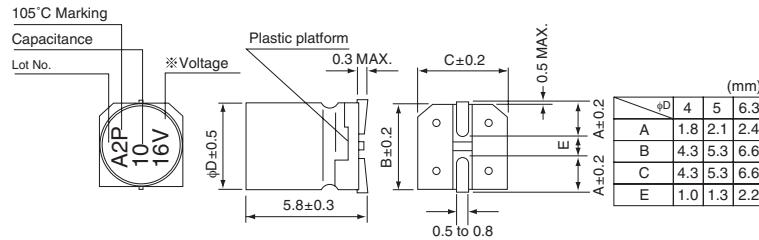
- Chip type, bi-polarized withstanding high temperature range up to +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



## ■ Specifications

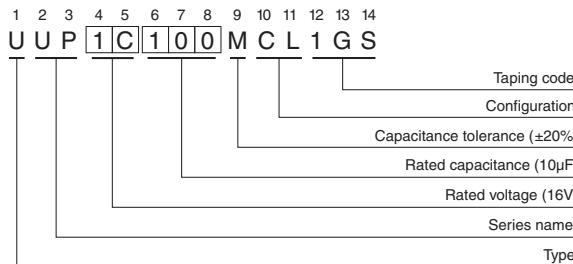
Item	Performance Characteristics																											
Category Temperature Range	-55 to +105°C																											
Rated Voltage Range	6.3 to 50V																											
Rated Capacitance Range	0.1 to 47μF																											
Capacitance Tolerance	±20% at 120Hz, 20°C																											
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.05 CV or 10 (μA), whichever is greater.																											
Tangent of loss angle (tan δ)	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <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> </tbody> </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	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Impedance ratio 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.) 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> </tbody> </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	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 105°C with the polarity every 250 hours.</p> <table border="1"> <thead> <tr> <th>Capacitance change</th> <th>Within ±20% of the initial capacitance value</th> </tr> </thead> <tbody> <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> </tbody> </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.																											
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"> <thead> <tr> <th>Capacitance change</th> <th>Within ±10% of the initial capacitance value</th> </tr> </thead> <tbody> <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> </tbody> </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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Marking	Black print on the case top.																											

## ■ Chip Type



※ Voltage mark for 6.3V is '6V'.

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



## ■ Dimensions

Cap.(μF) \ V	6.3	10	16	25	35	50
Code	0J	1A	1C	1E	1V	1H
0.1	0R1					4
0.22	R22					4
0.33	R33					4
0.47	R47					4
1	010					4
2.2	2R2				4	8.4
3.3	3R3			5	12	5
4.7	4R7		4	12	5	18
10	100	4	17	5	23	6.3
22	220	5	28	6.3	37	
33	330	6.3	37	6.3	49	
47	470	6.3	45			

Case size  
φ D (mm)

Rated  
ripple

Rated ripple current (mA rms) at 105°C 120Hz

## ● 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

- Taping specifications are given in page 23.

- Recommended land size, soldering by reflow are given in page 18, 19.

- Please select UN(p.162) series if high CV products are required.

- Please refer to page 3 for the minimum order quantity.

CAT.8100D

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