

ALUMINUM ELECTROLYTIC CAPACITORS

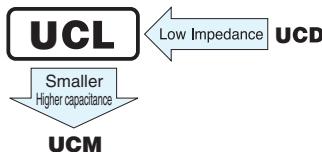
nichicon

UCL

Chip Type, Low Impedance



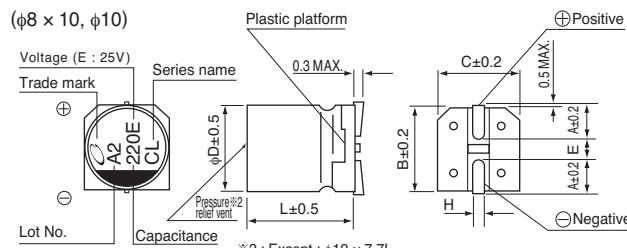
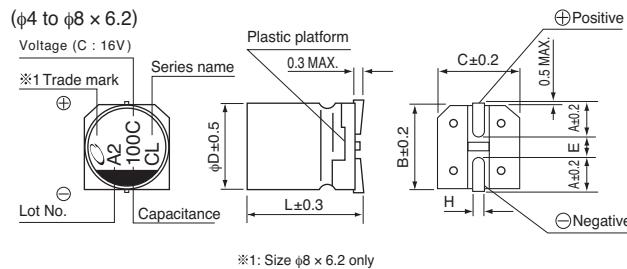
- Chip type, low impedance, temperature range up to +105°C.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



■ Specifications

Item	Performance Characteristics																																	
Category Temperature Range	– 55 to +105°C																																	
Rated Voltage Range	6.3 to 50V																																	
Rated Capacitance Range	10 to 2200μF																																	
Capacitance Tolerance	± 20% at 120Hz, 20°C																																	
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (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>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table>						Rated voltage (V)	6.3	10	16	25	35	50	tan δ (MAX.)	0.26	0.19	0.16	0.14	0.12	0.10														
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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>Z – 25°C / Z + 20°C</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>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Z – 55°C / Z + 20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>						Rated voltage (V)	6.3	10	16	25	35	50	Z – 25°C / Z + 20°C	2	2	2	2	2	2	Z – 40°C / Z + 20°C	3	3	3	3	3	3	Z – 55°C / Z + 20°C	4	4	4	3	3	3
Rated voltage (V)	6.3	10	16	25	35	50																												
Z – 25°C / Z + 20°C	2	2	2	2	2	2																												
Z – 40°C / Z + 20°C	3	3	3	3	3	3																												
Z – 55°C / Z + 20°C	4	4	4	3	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 105°C.			Capacitance Change	Within ± 30% 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.																																	
Resistance to soldering heat	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.			Capacitance Change	Within ± 10% of the initial capacitance value																													
				tan δ	Less than or equal to the initial specified value																													
Marking	Black print on the case top.																																	

■ Chip Type

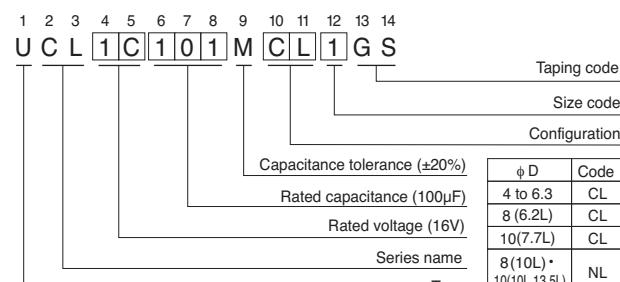


Voltage

V	6.3	10	16	25	35	50
Code	j	A	C	E	V	H

● Dimension table in next page.

Type numbering system (Example : 16V 100μF)



φ D x L	4 x 5.8	5 x 5.8	6.3 x 5.8	6.3 x 7.7	8 x 6.2	8 x 10	10 x 7.7	10 x 10	10 x 13.5
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2	3.2	3.2
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	10.3
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5	4.5	4.5
L	5.8	5.8	5.8	7.7	6.2	10	7.7	10	13.5
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1				

UCL

■ Specifications

Cap. (μF)	V	6.3			10			16			25			35			50							
		Code	0J		1A		1C		4 × 5.8	0.85	160	4 × 5.8	0.85	160	● 4 × 5.8	0.85	160	5 × 5.8	0.36	240	1V		1H	
10	100							4 × 5.8	0.85	160	4 × 5.8	0.85	160	● 4 × 5.8	0.85	160	5 × 5.8	0.36	240					
22	220	4 × 5.8	0.85	160	4 × 5.8	0.85	160	● 4 × 5.8	0.85	160	5 × 5.8	0.36	240	5 × 5.8	0.36	240	5 × 5.8	0.36	240					
33	330				● 4 × 5.8	0.85	160				● 5 × 5.8	0.36	240	● 5 × 5.8	0.36	240	6.3 × 5.8	0.26	300					
47	470	● 4 × 5.8	0.85	160	6.3 × 5.8	0.26	300	● 4 × 5.8	0.85	160	6.3 × 5.8	0.26	300	● 5 × 5.8	0.36	240	6.3 × 5.8	0.26	300					
68	680							6.3 × 5.8	0.26	300	6.3 × 5.8	0.26	300	6.3 × 5.8	0.26	300	6.3 × 7.7	0.16	600					
100	101	● 5 × 5.8	0.36	240	6.3 × 5.8	0.26	300	6.3 × 5.8	0.26	300	6.3 × 7.7	0.16	600	● 6.3 × 7.7	0.16	600	● 6.3 × 7.7	0.16	600	8 × 10	0.18	670		
150	151				6.3 × 5.8	0.26	300	6.3 × 7.7	0.16	600	6.3 × 7.7	0.16	600	● 8 × 6.2	0.18	500	8 × 10	0.08	850	8 × 10	0.08	850		
220	221	6.3 × 5.8	0.26	300	6.3 × 7.7	0.16	600	6.3 × 7.7	0.16	600	8 × 10	0.08	850	● 10 × 7.7	0.10	850	● 10 × 7.7	0.10	850	8 × 10	0.08	850		
330	331	6.3 × 7.7	0.16	600	8 × 10	0.08	850	8 × 10	0.08	850	8 × 10	0.08	850	● 10 × 7.7	0.10	850	10 × 10	0.06	1190					
390	391																		10 × 10	0.08	850			
470	471	8 × 10	0.08	850	8 × 10	0.08	850	8 × 10	0.08	850	10 × 10	0.06	1190	10 × 10	0.06	1190	10 × 13.5	0.06	1190					
560	561																		10 × 10	0.08	850			
680	681				8 × 10	0.08	850	10 × 10	0.06	1190	10 × 13.5	0.06	1190	10 × 13.5	0.06	1190								
820	821										10 × 10	0.08	850											
1000	102	8 × 10	0.08	850	10 × 10	0.06	1190	10 × 13.5	0.06	1190														
1200	122				10 × 10	0.08	850																	
1500	152	10 × 10	0.06	1190	10 × 13.5	0.06	1190																	
1800	182	10 × 10	0.08	850																				
2200	222	10 × 13.5	0.06	1190																				

Max. Impedance (Ω) at 20°C 100kHz, Rated ripple current (mA rms) at 105°C 100kHz

●: In this case, [6] will be put at 12th digit of type numbering system.

- Frequency coefficient of rated ripple current

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz or more
Coefficient	0.35	0.50	0.64	0.83	1.00

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.

Case size
ΦD × L
(mm)
Impedance
Rated
ripple