

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UCD

Chip Type, Low Impedance



- Chip type, low impedance 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).

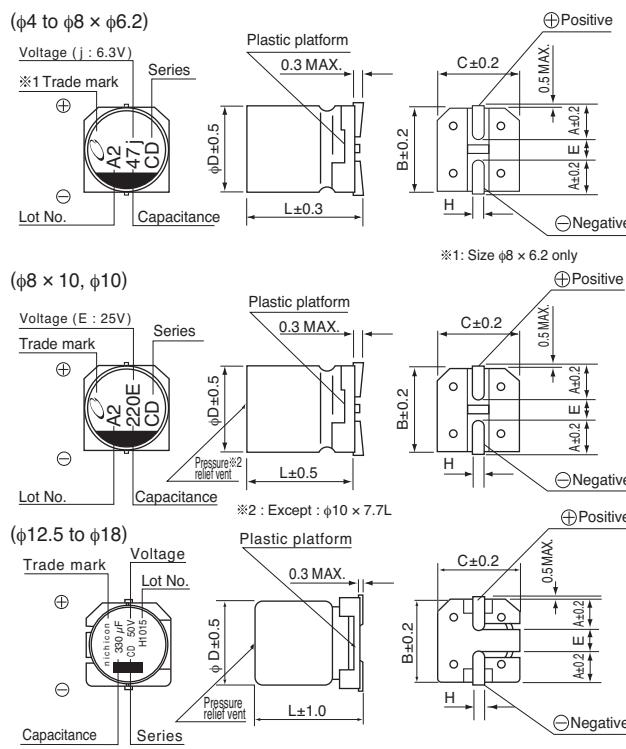
UCL Low Impedance UCD Low Impedance UUD



■ Specifications

Item	Performance Characteristics																																																
Category Temperature Range	-55 to +105°C																																																
Rated Voltage Range	6.3 to 100V																																																
Rated Capacitance Range	1 to 3300F																																																
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C																																																
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μ A), 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> <th>63</th> <th>80</th> <th>100</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> <td>0.08</td> <td>0.08</td> <td>0.07</td> </tr> </tbody> </table> For capacitance of more than 1000 μ F, add 0.02 for every increase of 1000 μ F.									Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	tan δ (MAX.)	0.26	0.19	0.16	0.14	0.12	0.10	0.08	0.08	0.07																				
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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	<table border="1"> <thead> <tr> <th>Capacitance Change</th> <th>Within $\pm 10\%$ 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 $\pm 10\%$ 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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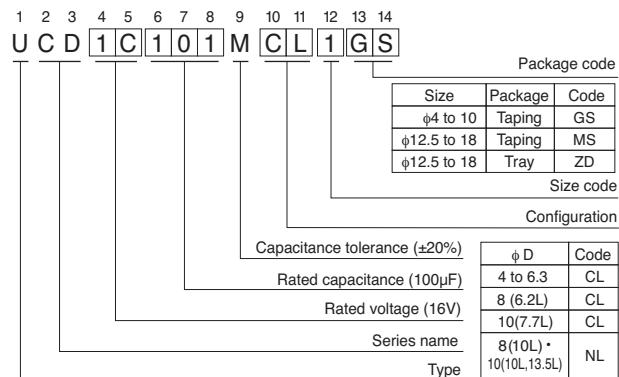
■ Chip Type



*Ø8 x 10L, Ø10 x 10L, Ø12.5 x 13.5L, Ø16 x 16.5L, Ø18 x 16.5L :
The vibration structure-resistant product is also available upon request, please ask for details.

● Dimension table in next page.

Type numbering system (Example : 16V 100 μ F)



Ø 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
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2	3.2
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5	4.5
L	5.8	5.8	5.8	7.7	6.2	10	7.7	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1				

Ø D x L	10 x 13.5	12.5 x 13.5	16 x 16.5	18 x 16.5
A	3.2	4.8	5.4	6.4
B	10.3	13.6	17.1	19.1
C	10.3	13.6	17.1	19.1
E	4.5	4.0	6.3	6.3
L	13.5	13.5	16.5	16.5
H	0.8 to 1.1	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

Voltage	6.3	10	16	25	35	50	63	80	100
Code	j	A	C	E	V	H	J	K	2A

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Dimensions

Cap. (μF)	V	6.3			10			16			25			35			50			
		Code	0J		1A		1C		4 × 5.8	1.35	90	4 × 5.8	1.35	90	4 × 5.8	1.35	90	4 × 5.8	1.35	90
1	010																	4 × 5.8	2.70	60
2.2	2R2																	4 × 5.8	2.70	60
3.3	3R3																	4 × 5.8	2.70	60
4.7	4R7																	4 × 5.8	2.70	60
10	100							4 × 5.8	1.35	90	4 × 5.8	1.35	90	●4 × 5.8	1.35	90	●5 × 5.8	1.50	90	
15	150							4 × 5.8	1.35	90	5 × 5.8	0.70	160	5 × 5.8	0.70	160	5 × 5.8	0.86	170	
22	220	4 × 5.8	1.35	90	4 × 5.8	1.35	90	●4 × 5.8	1.35	90	5 × 5.8	0.70	160	5 × 5.8	0.70	160	6.3 × 5.8	0.86	170	
27	270	4 × 5.8	1.35	90	5 × 5.8	0.70	160	5 × 5.8	0.70	160	6.3 × 5.8	0.36	240	●5 × 5.8	0.70	160	6.3 × 7.7	0.66	195	
33	330	5 × 5.8	0.70	160	●4 × 5.8	1.35	90	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	●5 × 5.8	0.70	160	●8 × 6.2	0.63	200	
47	470	●4 × 5.8	1.35	90	6.3 × 5.8	0.36	240	●5 × 5.8	0.70	160	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 7.7	0.66	195	
56	560	5 × 5.8	0.70	160	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	●8 × 6.2	0.63	200	●8 × 6.2	0.63	200	
68	680	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 7.7	0.32	290	8 × 10	0.32	350	
100	101	●5 × 5.8	0.70	160	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 7.7	0.32	290	●6.3 × 7.7	0.32	290	●10 × 7.7	0.36	330	
150	151	6.3 × 5.8	0.36	240	6.3 × 5.8	0.36	240	6.3 × 7.7	0.32	290	8 × 10	0.16	600	8 × 10	0.16	600	10 × 10	0.16	700	
220	221	6.3 × 5.8	0.36	240	6.3 × 7.7	0.32	290	●8 × 6.2	0.26	300	8 × 10	0.16	600	8 × 10	0.16	600	●10 × 7.7	0.16	700	
330	331	6.3 × 7.7	0.32	290	8 × 10	0.16	600	8 × 10	0.16	600	●8 × 6.2	0.26	300	●10 × 7.7	0.18	600	●10 × 13.5	0.14	800	
390	391				●10 × 7.7	0.18	600	●10 × 7.7	0.18	600	8 × 10	0.16	600	10 × 10	0.08	850	12.5 × 13.5	0.12	900	
470	471	8 × 10	0.16	600	8 × 10	0.16	600	8 × 10	0.16	600	●10 × 7.7	0.18	600	●10 × 13.5	0.08	950	●10 × 13.5	0.08	950	
680	681	8 × 10	0.16	600	●10 × 7.7	0.18	600	10 × 10	0.08	850	10 × 10	0.08	850	10 × 13.5	0.08	950	12.5 × 13.5	0.08	1100	
1000	102	8 × 10	0.16	600	10 × 10	0.08	850	10 × 13.5	0.08	950	12.5 × 13.5	0.08	1100	16 × 16.5	0.035	1800				
1500	152	10 × 10	0.08	850	10 × 13.5	0.08	950	12.5 × 13.5	0.08	1100										
2200	222	10 × 13.5	0.08	950	12.5 × 13.5	0.08	1100				16 × 16.5	0.035	1800							
3300	332	12.5 × 13.5	0.08	1100													Case size ΦD × L (mm)	Impedance	Rated ripple	

Cap. (μF)	V	63			80			100			
		Code	1J		1K		2A				
3.3	3R3				5 × 5.8	5.00	25				
4.7	4R7	5 × 5.8	3.00	50	6.3 × 5.8	3.00	40				
10	100	6.3 × 5.8	1.50	80	6.3 × 7.7	2.40	60				
22	220	6.3 × 7.7	1.20	120	8 × 10	1.30	130	8 × 10	1.30	130	
33	330	8 × 10	0.65	250	8 × 10	1.30	130	10 × 10	0.70	200	
47	470	8 × 10	0.65	250	10 × 10	0.70	200	12.5 × 13.5	0.32	500	
68	680	10 × 10	0.35	400	12.5 × 13.5	0.32	500	12.5 × 13.5	0.32	500	
100	101	10 × 10	0.35	400	12.5 × 13.5	0.32	500	16 × 16.5	0.17	793	
150	151	12.5 × 13.5	0.16	800	12.5 × 13.5	0.32	500	16 × 16.5	0.17	793	
220	221	12.5 × 13.5	0.16	800				18 × 16.5	0.15	917	
330	331				16 × 16.5	0.17	793	18 × 16.5	0.15	917	
470	471	16 × 16.5	0.082	1410	18 × 16.5	0.15	917	Case size ΦD × L (mm)	Impedance	Rated ripple	
680	681	18 × 16.5	0.08	1690							

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