

# ALUMINUM ELECTROLYTIC CAPACITORS

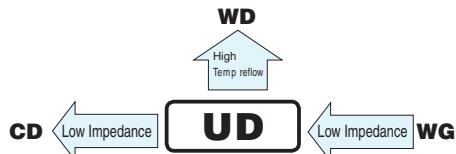
nichicon



Chip Type, Low Impedance  
series



- 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).

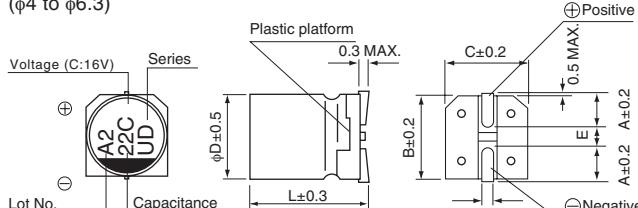


## ■ Specifications

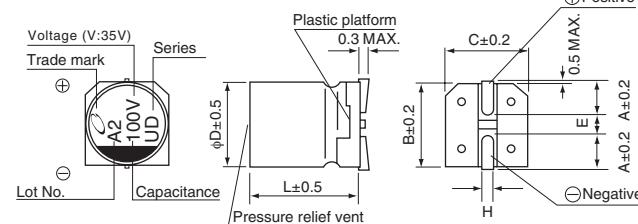
Item	Performance Characteristics																																	
Category Temperature Range	-55 to +105°C																																	
Rated Voltage Range	6.3 to 50V																																	
Rated Capacitance Range	1 to 1500μF																																	
Capacitance Tolerance	±20% at 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 (0.28)</td> <td>0.20 (0.24)</td> <td>0.16 (0.20)</td> <td>0.14 (0.16)</td> <td>0.12 (0.14)</td> <td>0.12 (0.14)</td> </tr> </tbody> </table>						Rated voltage (V)	6.3	10	16	25	35	50	tan δ (MAX.)	0.26 (0.28)	0.20 (0.24)	0.16 (0.20)	0.14 (0.16)	0.12 (0.14)	0.12 (0.14)														
Rated voltage (V)	6.3	10	16	25	35	50																												
tan δ (MAX.)	0.26 (0.28)	0.20 (0.24)	0.16 (0.20)	0.14 (0.16)	0.12 (0.14)	0.12 (0.14)																												
Stability at Low Temperature	<table border="1"> <thead> <tr> <th colspan="7">Measurement frequency : 120Hz</th> </tr> <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>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT / Z20 (MAX.) Z-55°C / Z+20°C</td> <td>5</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>						Measurement frequency : 120Hz							Rated voltage (V)	6.3	10	16	25	35	50	Impedance ratio Z-25°C / Z+20°C	3	2	2	2	2	2	ZT / Z20 (MAX.) Z-55°C / Z+20°C	5	4	4	3	3	3
Measurement frequency : 120Hz																																		
Rated voltage (V)	6.3	10	16	25	35	50																												
Impedance ratio Z-25°C / Z+20°C	3	2	2	2	2	2																												
ZT / Z20 (MAX.) Z-55°C / Z+20°C	5	4	4	3	3	3																												
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 5000 hours (2000 hours for φD = 4, 5 and 6.3) at 105°C.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% 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 ±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																						
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	<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																						
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																																	
Marking	Black print on the case top.																																	

## ■ Chip Type

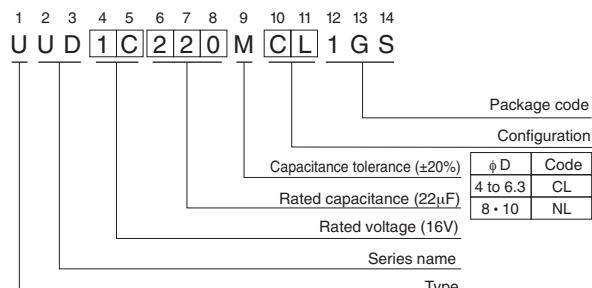
(φ4 to φ6.3)



(φ8 to φ10)



## Type numbering system (Example : 16V 22μF)



## Voltage

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

● Dimension table in next page.

φD × L	4 × 5.8	5 × 5.8	6.3 × 5.8	6.3 × 7.7	8 × 10	10 × 10
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.8	5.8	5.8	7.7	10	10
H	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

CAT.8100D

**UD** series

## ■ Dimensions

Cap. ( $\mu$ F)	V	6.3		10		16		25		35		50		
		Code	0J	Code	1A	Code	1C	Code	1E	Code	1V	Code	1H	
1	010												4 × 5.8   5.00   30	
2.2	2R2												4 × 5.8   5.00   30	
3.3	3R3												4 × 5.8   5.00   30	
4.7	4R7												4 × 5.8   1.80   80   5 × 5.8   1.52   85	
10	100												6.3 × 5.8   0.88   165	
15	150						4 × 5.8   1.80   80   5 × 5.8   0.76   150   5 × 5.8   0.76   150   6.3 × 5.8   0.88   165							
22	220				4 × 5.8   1.80   80   5 × 5.8   0.76   150   5 × 5.8   0.76   150   5 × 5.8   0.76   150   6.3 × 5.8   0.88   165									
27	270	4 × 5.8   1.80   80   5 × 5.8   0.76   150   5 × 5.8   0.76   150   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.68   185												
33	330	5 × 5.8   0.76   150   5 × 5.8   0.76   150   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.68   185												
47	470	5 × 5.8   0.76   150   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.68   185												
56	560	5 × 5.8   0.76   150   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.34   280   8 × 10   0.34   300   8 × 10   0.34   300												
68	680	6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.34   280   8 × 10   0.34   300   8 × 10   0.34   300												
100	101	6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.34   280   8 × 10   0.17   450   8 × 10   0.17   450   8 × 10   0.34   300   8 × 10   0.34   300												
150	151	6.3 × 5.8   0.44   230   6.3 × 5.8   0.44   230   6.3 × 7.7   0.34   280   8 × 10   0.17   450   8 × 10   0.17   450   8 × 10   0.17   450   10 × 10   0.18   670   8 × 10   0.18   670												
220	221	6.3 × 5.8   0.44   230   6.3 × 7.7   0.34   280   6.3 × 7.7   0.34   280   8 × 10   0.17   450   8 × 10   0.17   450   8 × 10   0.17   450   10 × 10   0.18   670   8 × 10   0.18   670												
330	331	6.3 × 7.7   0.34   280   8 × 10   0.17   450   8 × 10   0.17   450   8 × 10   0.17   450   10 × 10   0.09   670   8 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670												
470	471	8 × 10   0.17   450   8 × 10   0.17   450   8 × 10   0.17   450   10 × 10   0.09   670   8 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670												
680	681	8 × 10   0.17   450   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670												
1000	102	8 × 10   0.17   450   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670												
1500	152	10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670   10 × 10   0.09   670												

Max. Impedance ( $\Omega$ ) at 20°C 100kHz,  
Rated ripple current (mArms) at 105°C 100kHz

## ● Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz 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.

# X-ON Electronics

Largest Supplier of Electrical and Electronic Components

***Click to view similar products for [Nichicon manufacturer:](#)***

Other Similar products are found below :

[PCR1C681MCL1GS](#) [LAR2E821MELC30](#) [LKS1V103MESB](#) [LKS1V332MESA](#) [LLS1E682MELZ](#) [LNC2G182MSEF](#) [LNC2G392MSEG](#)  
[LNC2G472MSEH](#) [LNC2G682MSEG](#) [LNC2G682MSEH](#) [LNC2V272MSEG](#) [LNC2V332MSEG](#) [LNC2W682MSEH](#) [LNK2G122MSEF](#)  
[LNK2G182MSEF](#) [LNK2V182MSEF](#) [LNK2V222MSEF](#) [LNR1V334MSE](#) [LNT1C105MSE](#) [LNT1E154MSE](#) [LNT1E474MSE](#) [LNT1J103MSE](#)  
[LNT2E103MSE](#) [LNT2E222MSE](#) [LNT2G392MSEH](#) [LNT2H222MSEG](#) [LNT2H471MSEF](#) [LNU2G562MSEH](#) [LNUN7102MSEF](#)  
[LNX2H122MSEG](#) [LNX2H182MSEG](#) [LNX2V273MSEK](#) [LNX2W222MSEH](#) [LNX2W272MSEH](#) [LNY2G222MSEF](#) [LNY2V682MSEG](#)  
[LNY2W182MSEG](#) [LNY2W392MSEH](#) [LQR2G562MSEH](#) [LQR2W472MSEG](#) [POLYHC-KIT](#) [TVX1C220MAD](#) [UCA2W330MHD6](#)  
[UFW1H332MHD](#) [UHE1E102MHD6](#) [UHE1V102MHD1TO](#) [UHV1V102MHD](#) [UHW1E102MPD](#) [UKA1V332MHD](#) [UKL1H102MHD](#)