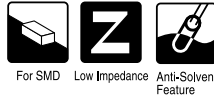


ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

CD 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 using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).

CD Low Impedance **UD**

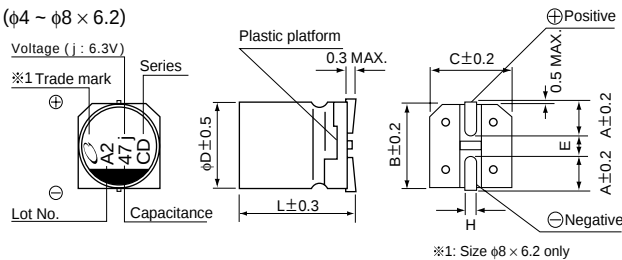


Specifications

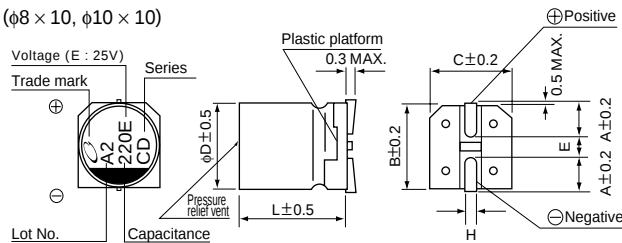
Item	Performance Characteristics										
Category Temperature Range	- 55 ~ +105°C										
Rated Voltage Range	6.3 ~ 100V										
Rated Capacitance Range	1 ~ 3300μF										
Capacitance Tolerance	± 20% at 120Hz, 20°C										
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA), whichever is greater.										
tan δ	Measurement frequency : 120Hz, Temperature : 20°C										
	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	
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.										
Stability at Low Temperature	Measurement frequency : 120Hz										
	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	
	Impeance ratio ZT / Z20 (MAX.)	Z—25°C / Z+20°C	2	2	2	2	2	2	2	2	2
		Z—40°C / Z+20°C	3	3	3	3	3	3	3	3	3
		Z—55°C / Z+20°C	4	4	4	3	3	3	3	3	3
Endurance	After 5000 hours' (2000 hours for L < 10 mm: 50V or less, and for L ≤ 10mm: 63V or more) application of rated voltage at 105°C, capacitors meet the characteristics requirements listed at right.				Capacitance Change		Within ± 30% of initial value for capacitors				
					tan δ		200% or less initial specified value 300% or less initial specified value for 63V or more				
					Leakage current		Initial specified value or less				
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.										
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristics requirements listed at right.				Capacitance Change		Within ± 10% of initial value				
					tan δ		Initial specified value or less				
					Leakage current		Initial specified value or less				
Marking	Black print on the case top.										

Chip Type

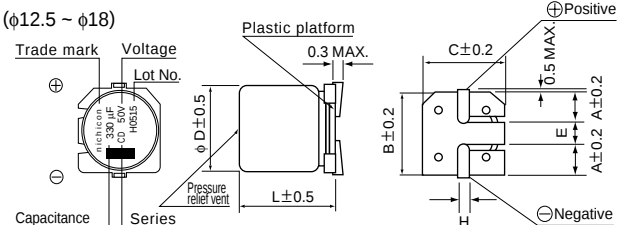
(φ4 ~ φ8 × 6.2)



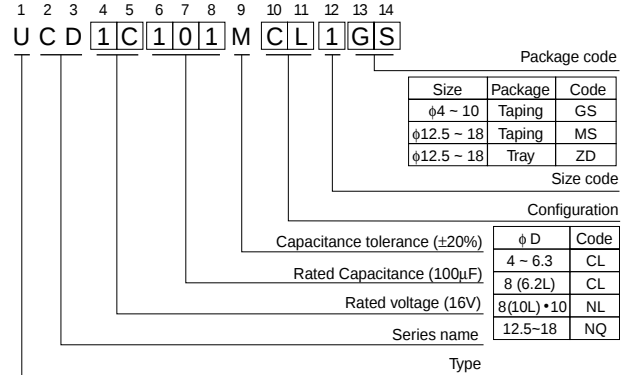
(φ8 × 10, φ10 × 10)



(φ12.5 ~ φ18)



Type numbering system (Example : 16V 100μF)



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

φD × L	12.5 × 13.5	16 × 16.5	18 × 16.5
A	4.8	5.4	6.4
B	13.6	17.1	19.1
C	13.6	17.1	19.1
E	4.0	6.3	6.3
L	13.5	16.5	16.5
H	1.0 ~ 1.4	1.0 ~ 1.4	1.0 ~ 1.4

Voltage

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

• Dimension table in next page.

CAT.8100V-1

■ Dimensions

V Cap. (μF) Code	6.3			10			16			25			35			50		
	0J			1A			1C			1E			1V			1H		
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	1.35	90	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
													5 × 5.8	0.70	160	6.3 × 5.8	0.86	170
15 150							4 × 5.8	1.35	90	5 × 5.8	0.70	160						
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
							5 × 5.8	0.70	160									
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						
33 330	5 × 5.8	0.70	160	● 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 × 7.7	0.66	195
				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
	5 × 5.8	0.70	160				6.3 × 5.8	0.36	240							● 8 × 6.2	0.63	200
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						
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			
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	8 × 10	0.32	350
	6.3 × 5.8	0.36	240							● 8 × 6.2	0.26	300	8 × 10	0.16	600			
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	6.3 × 7.7	0.32	290	8 × 10	0.16	600	8 × 10	0.16	600	10 × 10	0.16	700
				● 8 × 6.2	0.26	300	● 8 × 6.2	0.26	300									
330 331	6.3 × 7.7	0.32	290	8 × 10	0.16	600	8 × 10	0.16	600	8 × 10	0.16	600	10 × 10	0.08	850	12.5 × 13.5	0.12	900
	● 8 × 6.2	0.26	300															
390 391																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 × 10	0.08	850	12.5 × 13.5	0.08	1100	16 × 16.5	0.073	1610
680 681	8 × 10	0.16	600	10 × 10	0.08	850	10 × 10	0.08	850				12.5 × 13.5	0.08	1100	16 × 16.5	0.073	1610
1000 102	8 × 10	0.16	600	10 × 10	0.08	850				12.5 × 13.5	0.08	1100	16 × 16.5	0.035	1800			
1500 152	10 × 10	0.08	850				12.5 × 13.5	0.08	1100									
2200 222				12.5 × 13.5	0.08	1100				16 × 16.5	0.035	1800				Case size φD × L (mm) Impedance Rated ripple		
3300 332	12.5 × 13.5	0.08	1100															

V Cap. (μF) Code	63			80			100		
	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			
				● 8 × 6.2	2.40	60			
22 220	6.3 × 7.7	1.20	120	8 × 10	1.30	130	8 × 10	1.30	130
	● 8 × 6.2	1.20	120						
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 (mArms) 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~
Coefficient	0.35	0.50	0.64	0.83	1.00

- Taping specifications are given in page 24.
- Recommended land size, soldering by reflow are given in page 25, 26.
- Please refer to page 3 for the minimum order quantity.