ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

CD

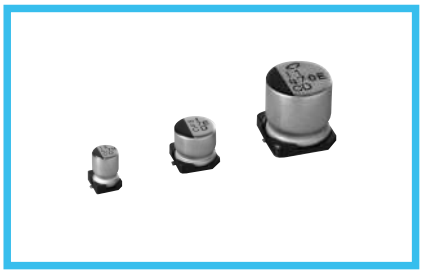
Chip Type, Low Impedance

series

For SMD | Low Impedance | Anti-Solvent Feature

- 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).

CL Low Impedance **CD** Low Impedance UD

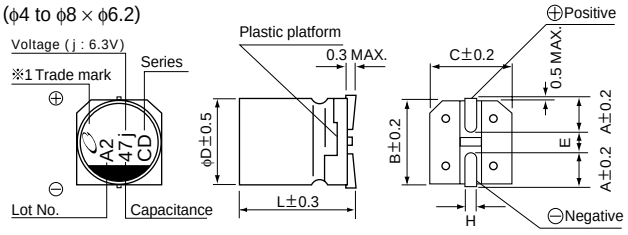


Specifications

Item	Performance Characteristics
Category Temperature Range	– 55 to +105°C
Rated Voltage Range	6.3 to 100V
Rated Capacitance Range	1 to 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.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 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 Impedance 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	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 L < 10 mm: 50V or less, and for L ≦ 10mm: 63V or more) at 105°C. Capacitance Change: Within ± 30% of the initial capacitance value tan δ: 200% or less than the initial specified value; 300% or less than the initial specified value for 63V or more 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 Leakage current: Less than or equal to the initial specified value
Marking	Black print on the case top.

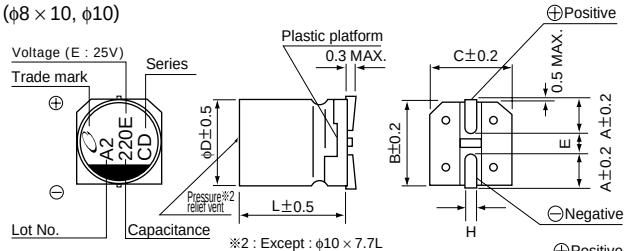
Chip Type

(φ4 to φ8 × φ6.2)



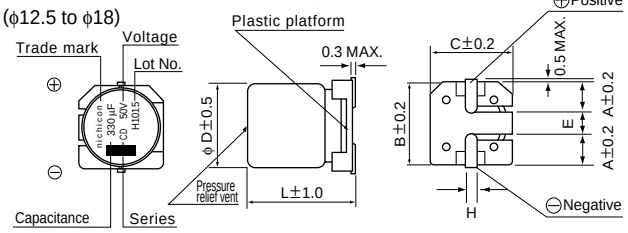
※1: Size φ8 × 6.2 only

(φ8 × 10, φ10)



※2 : Except : φ10 × 7.7L

(φ12.5 to φ18)



※φ8 × 10L, φ10 × 10L, φ12.5 × 13.5L, φ16 × 16.5L, φ18 × 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 100μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	C	D	1	C	1	0	1	M	C	L	1	G	S

Package code

Size	Package	Code
φ4 to 10	Taping	GS
φ12.5 to 18	Taping	MS
φ12.5 to 18	Tray	ZD

Size code

Configuration

φ D	Code
4 to 6.3	CL
8 (6.2L)	CL
10(7.7L)	CL
8(10L) • 10(10L,13.5L)	NL
12.5 to 18	NQ

Capacitance tolerance (±20%)

Rated capacitance (100μF)

Rated voltage (16V)

Series name

Type

φD×L	4×5.8	5×5.8	6.3×5.8	6.3×7.7	8×6.2	8×10	10×7.7	10×10
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	0.5 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	0.8 to 1.1

(mm)

φD×L	10×13.5	12.5×13.5	16×16.5	18×16.5
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

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

series

Cap. (μF) \ V	Code	6.3			10			16			25			35			50		
		0J			1A			1C			1E			1V			1H		
1	010																		
2.2	2R2																		
3.3	3R3																		
4.7	4R7																		
10	100							4×5.8	1.35	90									
15	150							4×5.8	1.35	90									
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									
27	270	4×5.8	1.35	90	5×5.8	0.70	160	5×5.8	0.70	160									
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												
47	470	4×5.8	1.35	90	6.3×5.8	0.36	240	5×5.8	0.70	160									
		5×5.8	0.70	160				6.3×5.8	0.36	240									
56	560	5×5.8	0.70	160	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									
100	101	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															
150	151	6.3×5.8	0.36	240	6.3×5.8	0.36	240	6.3×7.7	0.32	290									
220	221	6.3×5.8	0.36	240	6.3×7.7	0.32	290	6.3×7.7	0.32	290									
					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									
		8×6.2	0.26	300	10×7.7	0.18	600	10×7.7	0.18	600									
390	391																		
470	471	8×10	0.16	600	8×10	0.16	600		0.16	600									
		10×7.7	0.18	600	10×7.7	0.18	600		0.18	600									
680	681	8×10	0.16	600	10×10	0.08	850		0.08	850									
		10×7.7	0.18	600															
1000	102	8×10	0.16	600	10×10	0.08	850		0.08	950									
1500	152	10×10	0.08	850	10×13.5	0.08	950		0.08	1100									
2200	222	10×13.5	0.08	950	12.5×13.5	0.08	1100												
3300	332	12.5×13.5	0.08	1100															