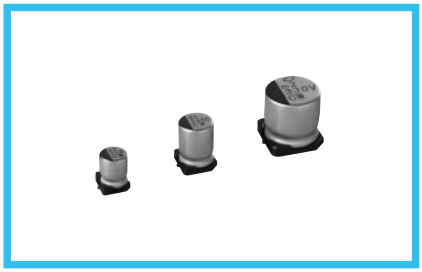
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

CW

Chip Type, Low Impedance, Long Life Assurance series

For SMD | Low Impedance | Long Life | Anti-Solvent Feature



- Chip type with load life of 7000 hours at +105°C. Low impedance temperature range up to +105°C.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2002/95/EC).

CW ← Low Impedance CB

■Specifications

Item	Performance Characteristics
Category Temperature Range	−25 to +105°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	10 to 470µF
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
tan δ (MAX.)	0.32	0.28	0.26	0.16	0.14	0.14

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35	50
Impedance ratio ZT / Z20 (MAX.)	Z−25°C / Z+20°C	4	3	2	2	2	2

Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 7000 hours at 105°C.

Capacitance change	Within ±30% of the initial capacitance value
tan δ	300% 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.

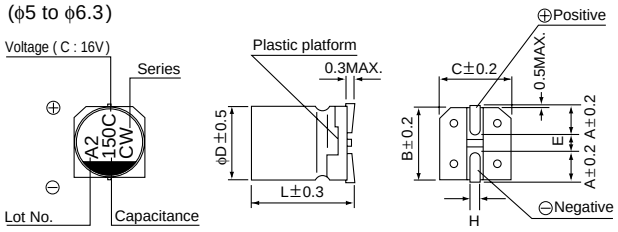
Resistance to soldering heat — The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.

Capacitance change	Within ±10% of the initial capacitance value
tan δ	Less than or equal to the initial specified value
Leakage current	Less than or equal to the initial specified value

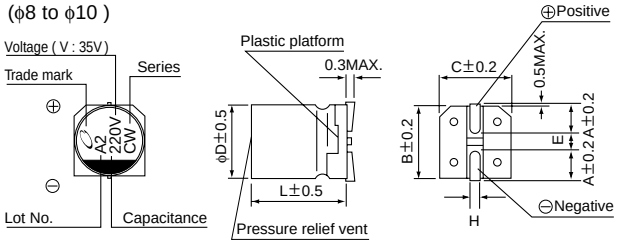
Marking — Black print on the case top.

■Chip Type

(φ5 to φ6.3)



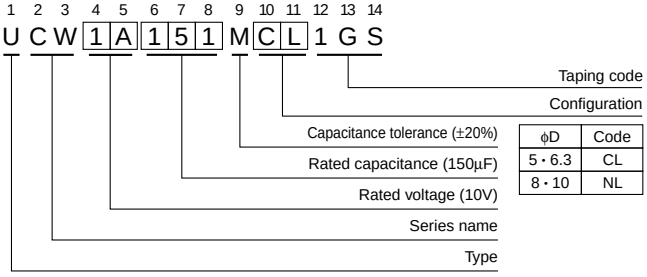
(φ8 to φ10)



Voltage

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

Type numbering system (Example : 10V 150µF)



φD	Code
5・6.3	CL
8・10	NL

(mm)

φD × L	5 × 7	6.3 × 7	6.3 × 8.7	8 × 10	10 × 10
A	2.1	2.4	2.4	2.9	3.2
B	5.3	6.6	6.6	8.3	10.3
C	5.3	6.6	6.6	8.3	10.3
E	1.3	2.2	2.2	3.1	4.5
L	7.0	7.0	8.7	10	10
H	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

● Dimension table in next page.

CW series

■Dimensions

Cap. (μF) \ V	6.3			10			16			25			35			50		
Code	0J			1A			1C			1E			1V			1H		
10 (100)													5×7	2.2	95			
22 (220)							5×7	2.2	95	5×7	2.2	95	5×7	2.2	95			
33 (330)				5×7	2.2	95				6.3×7	1.1	140	6.3×8.7	1.0	230			
47 (470)	5×7	2.2	95				6.3×7	1.1	140	6.3×7	1.1	140	6.3×8.7	1.0	230	8×10	0.53	350
100 (101)	6.3×7	1.1	140				6.3×7	1.1	140	6.3×8.7	1.0	230				8×10	0.53	350
150 (151)				6.3×7	1.1	140	6.3×8.7	1.0	230									
220 (221)	6.3×8.7	1.0	230				6.3×8.7	1.0	230	8×10	0.22	600	8×10	0.22	600	10×10	0.35	670
330 (331)	6.3×8.7	1.0	230				8×10	0.22	600	8×10	0.22	600	10×10	0.16	850	Case size φD×L (mm)	Impedance	Rated ripple
470 (471)	8×10	0.22	600				8×10	0.22	600	10×10	0.16	850						

Max. impedance (Ω) 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.