

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UCW

Chip Type, Low Impedance,
Long Life Assurance



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 (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

UCW ← Low Impedance → **UCB**

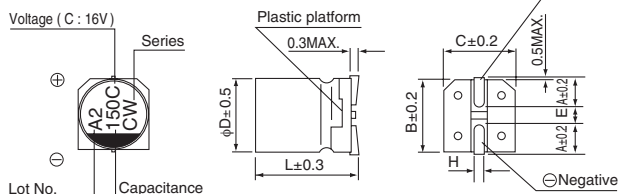


Specifications

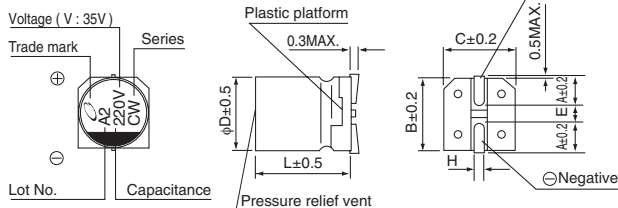
Item	Performance Characteristics							
Category Temperature Range	-25 to +105°C							
Rated Voltage Range	6.3 to 50V							
Rated Capacitance Range	10 to 470μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current 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

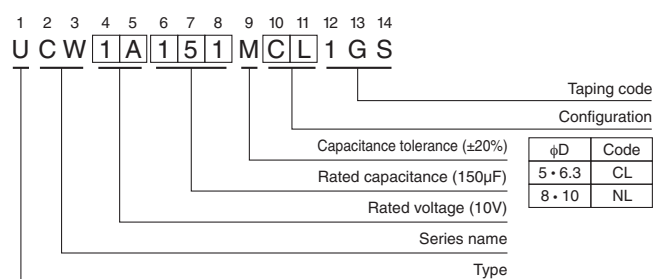
(φ5, φ6.3)



(φ8, φ10)



Type numbering system (Example : 10V 150μF)



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

Voltage

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

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

● Dimension table in next page.

CAT.8100K

UCW

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20°C after 2 minutes)	Impedance (Ω) MAX. (20°C/100kHz)	Rated Ripple (mA _{rms}) (105°C/100kHz)	Part Number
6.3 (0J)	47	5×7	0.32	3	2.20	95	UCW0J470MCL1GS
	100	6.3×7	0.32	6.3	1.10	140	UCW0J101MCL1GS
	220	6.3×8.7	0.32	13.86	1.00	230	UCW0J221MCL1GS
	330	6.3×8.7	0.32	20.79	1.00	230	UCW0J331MCL1GS
	470	8×10	0.32	29.61	0.22	600	UCW0J471MNL1GS
10 (1A)	33	5×7	0.28	3.3	2.20	95	UCW1A330MCL1GS
	150	6.3×7	0.28	15	1.10	140	UCW1A151MCL1GS
16 (1C)	22	5×7	0.26	3.52	2.20	95	UCW1C220MCL1GS
	47	6.3×7	0.26	7.52	1.10	140	UCW1C470MCL1GS
	100	6.3×7	0.26	16	1.10	140	UCW1C101MCL1GS
	150	6.3×8.7	0.26	24	1.00	230	UCW1C151MCL1GS
	220	6.3×8.7	0.26	35.2	1.00	230	UCW1C221MCL1GS
	330	8×10	0.26	52.8	0.22	600	UCW1C331MNL1GS
	470	8×10	0.26	75.2	0.22	600	UCW1C471MNL1GS
25 (1E)	22	5×7	0.16	5.5	2.20	95	UCW1E220MCL1GS
	33	6.3×7	0.16	8.25	1.10	140	UCW1E330MCL1GS
	47	6.3×7	0.16	11.75	1.10	140	UCW1E470MCL1GS
	100	6.3×8.7	0.16	25	1.00	230	UCW1E101MCL1GS
	220	8×10	0.16	55	0.22	600	UCW1E221MNL1GS
	330	8×10	0.16	82.5	0.22	600	UCW1E331MNL1GS
	470	10×10	0.16	117.5	0.16	850	UCW1E471MNL1GS
35 (1V)	10	5×7	0.14	3.5	2.20	95	UCW1V100MCL1GS
	22	5×7	0.14	7.7	2.20	95	UCW1V220MCL1GS
	33	6.3×8.7	0.14	11.55	1.00	230	UCW1V330MCL1GS
	47	6.3×8.7	0.14	16.45	1.00	230	UCW1V470MCL1GS
	220	8×10	0.14	77	0.22	600	UCW1V221MNL1GS
	330	10×10	0.14	115.5	0.16	850	UCW1V331MNL1GS
50 (1H)	47	8×10	0.14	23.5	0.53	350	UCW1H470MNL1GS
	100	8×10	0.14	50	0.53	350	UCW1H101MNL1GS
	220	10×10	0.14	110	0.35	670	UCW1H221MNL1GS

- For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.