nichicon

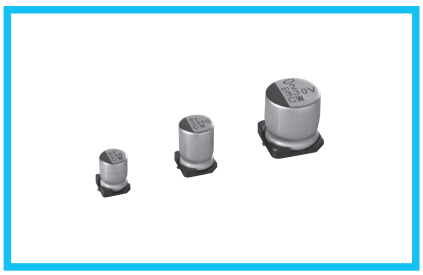
UCW

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).

UCW ← Low Impedance — UCB

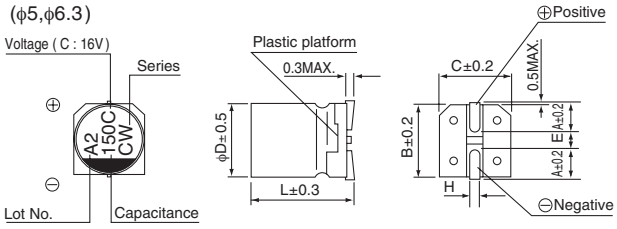


■Specifications

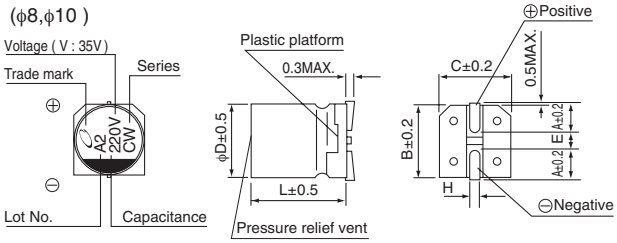
Item	Performance Characteristics
Category Temperature Range	–25 to +105°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	10 to 470μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01 CV or 3 (μA) , 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)



Voltage

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

Type numbering system (Example : 10V 150μF)

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

- 1 2 3: Type
- 4 5: Series name
- 6 7 8: Rated voltage (10V)
- 9: Rated capacitance (150μF)
- 10: Capacitance tolerance (±20%)
- 11 12: Configuration
- 13 14: Taping code

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.

UCW

■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.