ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UCB

Chip Type, Long Life Assurance

For SMD | Long Life | Anti-Solvent Feature

- Chip type with load life of 7000 hours at +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.

UCB → Long Life → UUL

UCB → Low Impedance → UCW



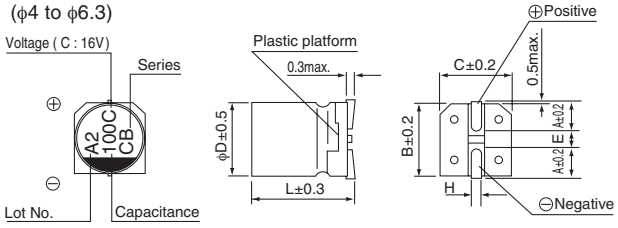
■Specifications

Item	Performance Characteristics
Category Temperature Range	−25 to +105°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	1 to 1000μF
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 0.03 CV or 4 (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.

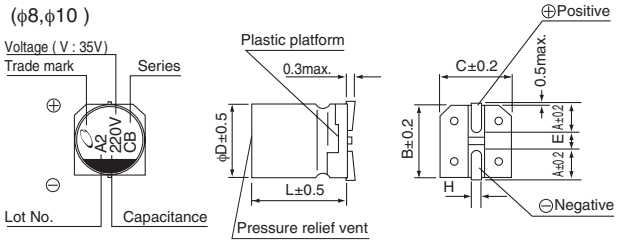
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■Chip Type

(φ4 to φ6.3)



(φ8,φ10)



Type numbering system (Example : 16V 100μF)

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

- 14: Taping code
- 10–11: Configuration
- 9: Capacitance tolerance (±20%)
- 6–8: Rated capacitance (100μF)
- 4–5: Rated voltage (16V)
- 3: Series name
- 1–2: Type

φD	Code
4 to 6.3	CL
8・10	NL

(mm)

φD × L	4 × 7	5 × 7	6.3 × 7	6.3 × 8.7	8 × 10	10 × 10
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	7.0	7.0	7.0	8.7	10	10
H	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.5 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	0.70	1.00	1.17	1.36	1.50

● Dimension table in next page.

UCB

■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 2 minutes)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
6.3 (0J)	22	4×7	0.32	4.158	22	UCB0J220MCL1GS
	47	5×7	0.32	8.883	36	UCB0J470MCL1GS
	100	6.3×7	0.32	18.9	60	UCB0J101MCL1GS
	220	6.3×8.7	0.32	41.58	101	UCB0J221MCL1GS
	330	8×10	0.32	62.37	160	UCB0J331MNL1GS
	1000	10×10	0.32	189	313	UCB0J102MNL1GS
10 (1A)	33	5×7	0.28	9.9	35	UCB1A330MCL1GS
	220	8×10	0.28	66	141	UCB1A221MNL1GS
16 (1C)	10	4×7	0.26	4.8	18	UCB1C100MCL1GS
	22	5×7	0.26	10.56	30	UCB1C220MCL1GS
	47	6.3×7	0.26	22.56	50	UCB1C470MCL1GS
	100	6.3×8.7	0.26	48	81	UCB1C101MCL1GS
	470	10×10	0.26	225.6	254	UCB1C471MNL1GS
25 (1E)	33	6.3×7	0.16	24.75	48	UCB1E330MCL1GS
	47	6.3×8.7	0.16	35.25	63	UCB1E470MCL1GS
	100	8×10	0.16	75	116	UCB1E101MNL1GS
35 (1V)	1	4×7	0.14	4	6.2	UCB1V010MCL1GS
	2.2	4×7	0.14	4	11	UCB1V2R2MCL1GS
	3.3	4×7	0.14	4	14	UCB1V3R3MCL1GS
	4.7	4×7	0.14	4.935	15	UCB1V4R7MCL1GS
	10	5×7	0.14	10.5	25	UCB1V100MCL1GS
	22	6.3×7	0.14	23.1	42	UCB1V220MCL1GS
	33	6.3×8.7	0.14	34.65	57	UCB1V330MCL1GS
	220	10×10	0.14	231	216	UCB1V221MNL1GS
50 (1H)	33	8×10	0.14	49.5	77	UCB1H330MNL1GS
	47	8×10	0.14	70.5	92	UCB1H470MNL1GS
	100	10×10	0.14	150	151	UCB1H101MNL1GS

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