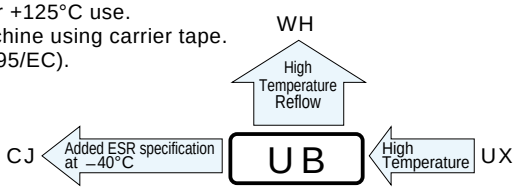
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UB Chip Type, High Reliability series

For SMD | Long Life | Anti-Solvent Feature

- Chip type, high temperature range, for +125°C use.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).



■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +125°C
Rated Voltage Range	10 to 50V
Rated Capacitance Range	10 to 330μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4(μA) , whichever is greater.
tan δ	Measurement frequency : 120Hz, Temperature : 20°C

Rated voltage (V)	10	16	25	35	50
tan δ (MAX.)	0.32	0.24	0.21	0.18	0.18

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		10	16	25	35	50
Impedance ratio ZT / Z20 (MAX.)	Z−40°C / Z+20°C	12	8	6	4	4

Endurance — After 2000 hours' (φ8 × 6.2 : 1000 hours) application of rated voltage at 125°C, capacitors meet the characteristic requirements listed at right.

Capacitance change	Within ±30% of initial value
tan δ	300% or less of intial specified value
Leakage current	Initial specified value or less

Shelf Life — After storing the capacitors under no load at 125°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.

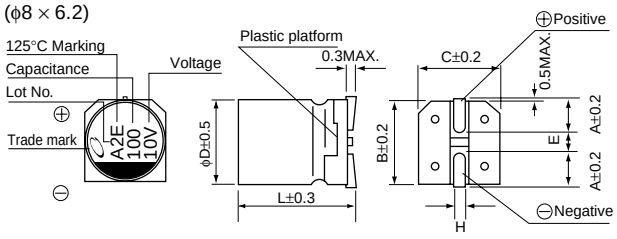
Resistance to soldering heat — The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.

Capacitance change	Within ±10% of initial value
tan δ	Initial specified value or less
Leakage current	Initial specified value or less

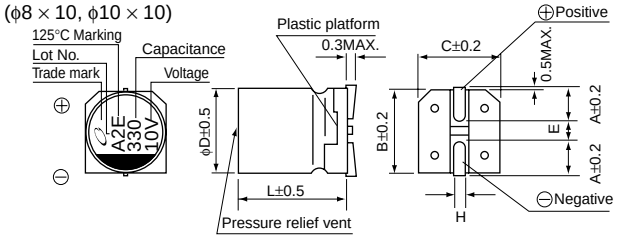
Marking — Black print on the case top.

■Chip Type

(φ8 × 6.2)



(φ8 × 10, φ10 × 10)



(mm)

φD × L	8×6.2	8×10	10×10
A	3.3	2.9	3.2
B	8.3	8.3	10.3
C	8.3	8.3	10.3
E	2.3	3.1	4.5
L	6.2	10	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Type numbering system (Example : 10V 100μF)

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

- 14: Taping code
- 10–11: Configuration

φD × L	Code
8 × 6.2	CL
8 × 10	NL
10 × 10	NL

- 9: Capacitance tolerance (±20%)
- 6–8: Rated Capacitance (100μF)
- 4–5: Rated voltage (10V)
- 3: Series name
- 1–2: Type

■Dimensions

Cap.(μF) \ V / Code	10	1A	16	1C	25	1E	35	1V	50	1H
10	100								8×6.2	24
22	220								8×6.2	38
33	330						8×6.2	44	8×10	46
47	470				8×6.2	48	8×10	52	10×10	58
100	101	8×6.2	58	8×10	66	8×10	74	10×10	80		
220	221	8×10	90	10×10	102	10×10	116			Case size φD×L (mm)	Rated ripple
330	331	10×10	112								

Rated Ripple (mArms) at 125°C 120Hz

●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

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UH(p.94) series if high CV products are required.
- Please refer to page 3 for the minimum order quantity.