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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UBC

Chip Type, High Temperature Range, Vibration Resistance

For SMD | Long Life | Anti-Solvent Feature



- Highly dependable reliability withstanding load life of 1000 hours at +150°C.
- Suited for automobile electronics where heavy duty services are indispensable.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

UBC → Long Life → UBH

UBC → High Temperature → UUE

■Specifications

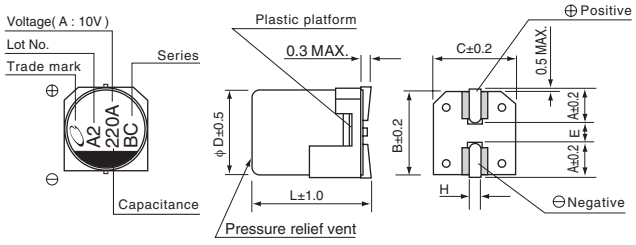
Item	Performance Characteristics							
Category Temperature Range	−40 to +150°C (φ8 to 10), −55 to +150°C (φ12.5 to 18)							
Rated Voltage Range	10 to 50V							
Rated Capacitance Range	33 to 3300μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.							
Tangent of loss angle (tan δ)	Rated voltage (V)		10	16	25	35	50	120Hz 20°C
	tan δ (MAX.)	φ8, φ10	0.26	0.20	0.16	0.14	0.14	
		φ12.5 to φ18	0.22	0.18	0.16	0.14	0.12	
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. (φ12.5 to φ18)							
Stability at Low Temperature	Rated voltage (V)		10	16	25	35	50	120Hz
	Impedance ratio Z−40°C / Z+20°C (MAX.)	φ8, φ10	10	8	6	4	4	
		φ12.5 to φ18	8	6	4	4	4	
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 150°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

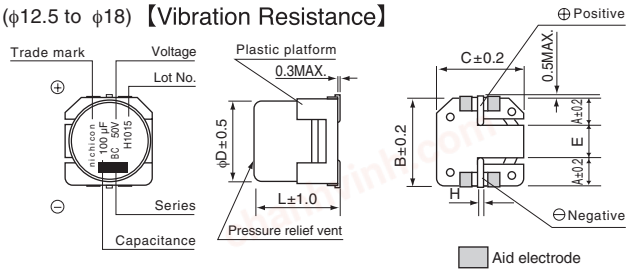
Shelf Life	After storing the capacitors under no load at 150°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.
Marking	Black print on the case top.

■Chip Type

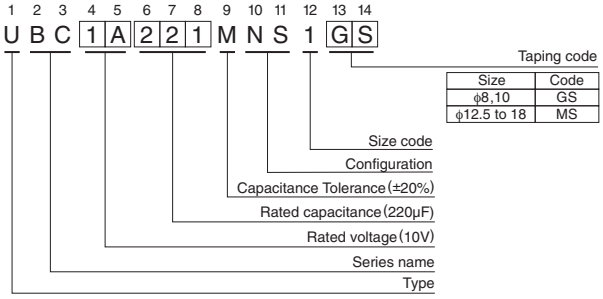
(φ8 , φ10) 【Vibration Resistance】



(φ12.5 to φ18) 【Vibration Resistance】



Type numbering system (Example : 10V 220μF)



(mm)

φD	8	10	12.5	16	18
A	2.9	3.2	4.8	5.4	6.4
B	8.3	10.3	13.6	17.1	19.1
C	8.3	10.3	13.6	17.1	19.1
E	3.1	4.5	4.0	6.3	6.3
L	10	10	13.5	16.5,21.5	21.5
H	1.1 to 1.5	1.1 to 1.5	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

●Frequency coefficient of rated ripple current

Frequency	120 Hz	300 Hz	1 kHz	10kHz or more
Coefficient	0.67	0.79	0.91	1.00

●Dimension table in next page.

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■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (150℃/100kHz)	Part Number
10 (1A)	220	8×10	0.26	66	110	UBC1A221MNS1GS
	330	10×10	0.26	99	150	UBC1A331MNS1GS
	680	12.5×13.5	0.22	204	800	UBC1A681MNS1MS
	1000	12.5×13.5	0.22	300	900	UBC1A102MNS1MS
	2200	18×21.5	0.24	660	1350	UBC1A222MNS1MS
	3300	18×21.5	0.26	990	1400	UBC1A332MNS1MS
16 (1C)	100	8×10	0.20	48	110	UBC1C101MNS1GS
	220	10×10	0.20	105.6	150	UBC1C221MNS1GS
	470	12.5×13.5	0.18	225.6	750	UBC1C471MNS1MS
	680	12.5×13.5	0.18	326.4	800	UBC1C681MNS1MS
	1000	16×16.5	0.18	480	850	UBC1C102MNS1MS
	2200	18×21.5	0.20	1056	1350	UBC1C222MNS1MS
25 (1E)	100	8×10	0.16	75	110	UBC1E101MNS1GS
	220	10×10	0.16	165	150	UBC1E221MNS1GS
	330	12.5×13.5	0.16	247.5	650	UBC1E331MNS1MS
	470	12.5×13.5	0.16	352.5	700	UBC1E471MNS1MS
	680	16×16.5	0.16	510	800	UBC1E681MNS1MS
	1000	16×21.5	0.16	750	1000	UBC1E102MNS1MS
35 (1V)	47	8×10	0.14	49.35	80	UBC1V470MNS1GS
	100	10×10	0.14	105	120	UBC1V101MNS1GS
	220	12.5×13.5	0.14	231	550	UBC1V221MNS1MS
	330	12.5×13.5	0.14	346.5	650	UBC1V331MNS1MS
	470	16×16.5	0.14	493.5	750	UBC1V471MNS1MS
	680	16×21.5	0.14	714	950	UBC1V681MNS1MS
	1000	18×21.5	0.14	1050	1150	UBC1V102MNS1MS
50 (1H)	33	8×10	0.14	49.5	70	UBC1H330MNS1GS
	47	10×10	0.14	70.5	100	UBC1H470MNS1GS
	100	12.5×13.5	0.12	150	420	UBC1H101MNS1MS
	220	16×16.5	0.12	330	550	UBC1H221MNS1MS
	330	16×21.5	0.12	495	650	UBC1H331MNS1MS
	470	16×21.5	0.12	705	850	UBC1H471MNS1MS
	680	18×21.5	0.12	1020	1100	UBC1H681MNS1MS

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