



**THE DATASHEET OF
UBC1A102MNS1MS**



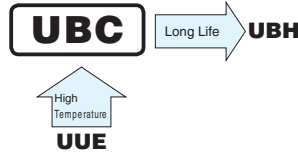
ALUMINUM ELECTROLYTIC CAPACITORS

UBC

Chip Type, High Temperature Range,
Vibration Resistance



- 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 Qualified. Please contact us for details.



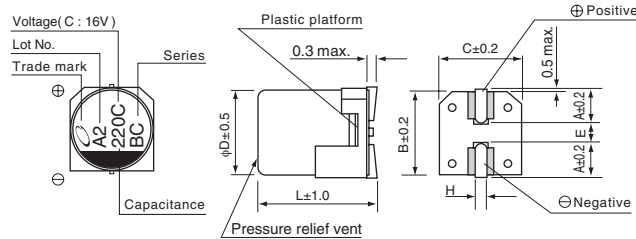
Specifications

Item	Performance Characteristics						
Category Temperature Range	-40 to +150°C (φ8 to 10), -55 to +150°C (φ12.5 to 18)						
Rated Voltage Range	16 to 50V						
Rated Capacitance Range	33 to 2200μF						
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(μA).						
Tangent of loss angle (tan δ)	Rated voltage (V)	16	25	35	50	120Hz 20°C	
	tan δ	φ8, φ10	0.20	0.16	0.14		0.14
	(max.)	φ12.5 to φ18	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)	16	25	35	50	120Hz	
	Impedance ratio Z(-40°C) / Z(+20°C) (max.)	φ8, φ10	8	6	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.						

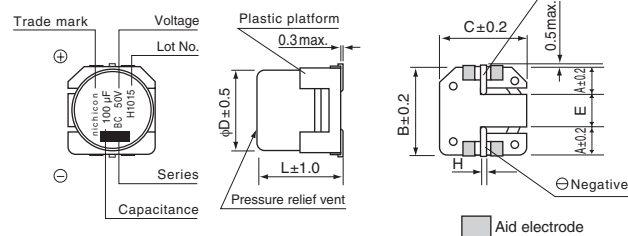
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

Chip Type

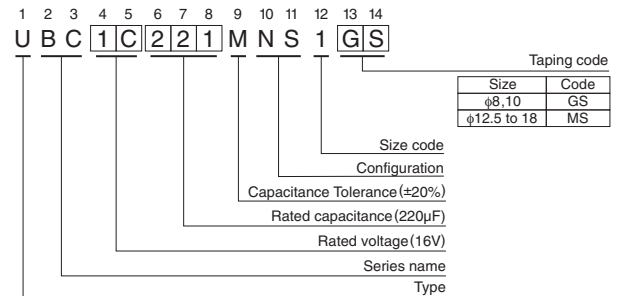
(φ8, φ10) 【Vibration Resistance】



(φ12.5 to φ18) 【Vibration Resistance】



Type numbering system (Example : 16V 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.

UBC

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D \times L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 1 minute)	Rated Ripple (mA _{rms}) (150°C/100kHz)	Part Number
16 (1C)	100	8 \times 10	0.20	48	110	UBC1C101MNS1GS
	220	10 \times 10	0.20	105.6	150	UBC1C221MNS1GS
	470	12.5 \times 13.5	0.18	225.6	750	UBC1C471MNS1MS
	680	12.5 \times 13.5	0.18	326.4	800	UBC1C681MNS1MS
	1000	16 \times 16.5	0.18	480	850	UBC1C102MNS1MS
	2200	18 \times 21.5	0.20	1056	1350	UBC1C222MNS1MS
25 (1E)	100	8 \times 10	0.16	75	110	UBC1E101MNS1GS
	220	10 \times 10	0.16	165	150	UBC1E221MNS1GS
	330	12.5 \times 13.5	0.16	247.5	650	UBC1E331MNS1MS
	470	12.5 \times 13.5	0.16	352.5	700	UBC1E471MNS1MS
	680	16 \times 16.5	0.16	510	800	UBC1E681MNS1MS
	1000	16 \times 21.5	0.16	750	1000	UBC1E102MNS1MS
35 (1V)	47	8 \times 10	0.14	49.35	80	UBC1V470MNS1GS
	100	10 \times 10	0.14	105	120	UBC1V101MNS1GS
	220	12.5 \times 13.5	0.14	231	550	UBC1V221MNS1MS
	330	12.5 \times 13.5	0.14	346.5	650	UBC1V331MNS1MS
	470	16 \times 16.5	0.14	493.5	750	UBC1V471MNS1MS
	680	16 \times 21.5	0.14	714	950	UBC1V681MNS1MS
	1000	18 \times 21.5	0.14	1050	1150	UBC1V102MNS1MS
50 (1H)	33	8 \times 10	0.14	49.5	70	UBC1H330MNS1GS
	47	10 \times 10	0.14	70.5	100	UBC1H470MNS1GS
	100	12.5 \times 13.5	0.12	150	420	UBC1H101MNS1MS
	220	16 \times 16.5	0.12	330	550	UBC1H221MNS1MS
	330	16 \times 21.5	0.12	495	650	UBC1H331MNS1MS
	470	16 \times 21.5	0.12	705	850	UBC1H471MNS1MS
	680	18 \times 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.

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