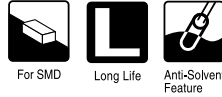
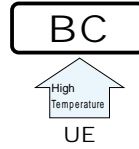


# ALUMINUM ELECTROLYTIC CAPACITORS

**BC** Chip Type, High Temperature Range, Vibration Resistance series



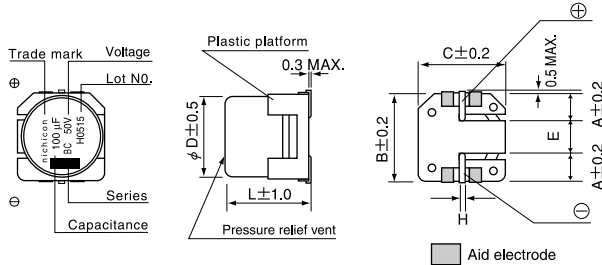
- Highly dependable reliability withstanding load life of 1000 hours at +150°C.
- Suited for automobile electronics where heavy duty services are indispensable.
- Adapted to the RoHS directive (2002/95/EC).



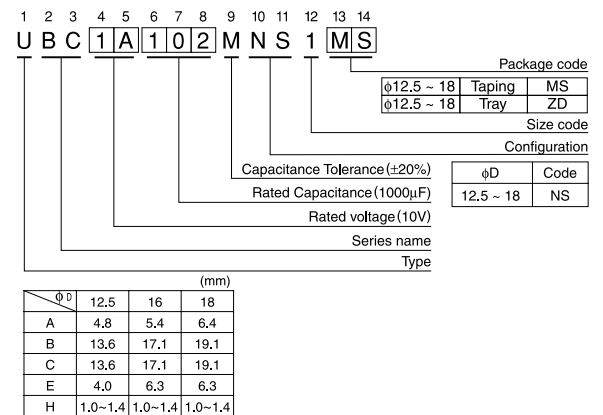
## Specifications

Item	Performance Characteristics							
Category Temperature Range	-55 ~ +150°C							
Rated Voltage Range	10 ~ 50V							
Rated Capacitance Range	100 ~ 3300μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 1 minutes' application of rated voltage, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.							
tan δ	Rated voltage (V)	10	16	25	35	50	120Hz 20°C	
	tan δ (MAX.)	0.22	0.18	0.16	0.14	0.12		
For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.								
Stability at Low Temperature	Rated voltage (V)	10	16	25	35	50	120Hz	
	Impedance ratio (MAX.) Z-40°C / Z+20°C	8	6	4	4	4		
Endurance	After 1000 hours' application of rated voltage at 150°C, capacitors meet the characteristics requirements listed at right.						Capacitance change	Within ±30% of initial value
							tan δ	300% or less of initial specified value
							Leakage current	Initial specified value or less
Shelf Life	After storing the capacitors under no load at 150°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.							
Marking	Black print on the case top.							

## Chip Type



## Type numbering system (Example : 10V 1000μF)



## Dimensions

Cap. (μF)	V		10		16		25		35		50	
	Code		1A		1C		1E		1V		1H	
100	101										12.5 × 13.5	420
220	221								12.5 × 13.5	550	16 × 16.5	550
330	331						12.5 × 13.5	650	12.5 × 13.5	650	16 × 21.5	650
470	471			12.5 × 13.5	750	12.5 × 13.5	700	16 × 16.5	16 × 16.5	750	16 × 21.5	850
680	681	12.5 × 13.5	800	12.5 × 13.5	800	16 × 16.5	800	16 × 21.5	16 × 21.5	950	18 × 21.5	1100
1000	102	12.5 × 13.5	900	16 × 16.5	850	16 × 21.5	1000	18 × 21.5	18 × 21.5	1150		
2200	222	18 × 21.5	1350	18 × 21.5	1350						Case size	Rated ripple
3300	332	18 × 21.5	1400								φD × L (mm)	

Rated Ripple (mArms) at 150°C 100kHz

## Frequency coefficient of rated ripple current

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

- Taping specifications are given in page 22.
- Recommended land size, soldering by reflow are given in page 25, 26.
- Please refer to page 3 for the minimum order quantity.