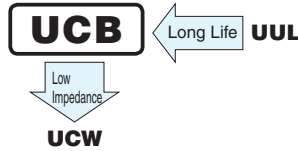


# UCB

Chip Type, Long Life Assurance



- 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).

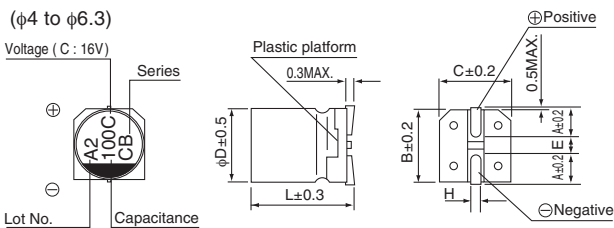


Values marked with an ※ in the dimension table are scheduled to be discontinued and are not recommended for new designs.

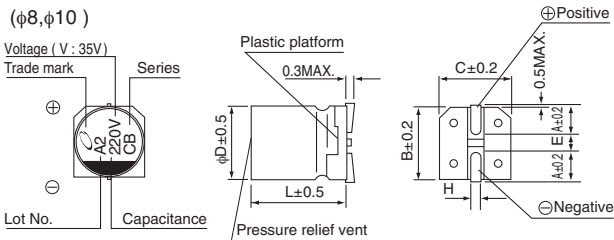
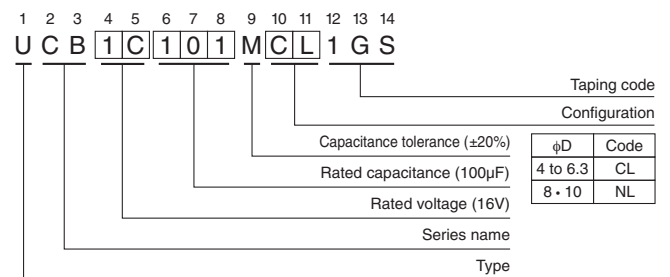
## Specifications

Item	Performance Characteristics							
Category Temperature Range	-25 to +105°C							
Rated Voltage Range	6.3 to 50V							
Rated Capacitance Range	0.1 to 1000μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage, 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	
Stability at Low Temperature	Measurement frequency : 120Hz							
	Rated voltage (V)	6.3	10	16	25	35	50	
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
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.		Leakage current					Less than or equal to the initial specified value
			Capacitance change					Within ±10% of the initial capacitance value
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.		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.							

## Chip Type



## Type numbering system (Example : 16V 100μF)



(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

● Dimension table in next page.

## UCB

### ■ Dimensions

Cap.( $\mu$ F)	V Code	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1									※ 4 × 7	1.0		
0.22	R22									※ 4 × 7	2.6		
0.33	R33									※ 4 × 7	3.2		
0.47	R47									※ 4 × 7	3.8		
1	010									4 × 7	6.2		
2.2	2R2									4 × 7	11		
3.3	3R3									4 × 7	14		
4.7	4R7									4 × 7	15		
10	100					4 × 7	18			5 × 7	25		
22	220	4 × 7	22			5 × 7	30			6.3 × 7	42		
33	330			5 × 7	35			6.3 × 7	48	6.3 × 8.7	57	8 × 10	77
47	470	5 × 7	36			6.3 × 7	50	6.3 × 8.7	63			8 × 10	92
100	101	6.3 × 7	60			6.3 × 8.7	81	8 × 10	116			10 × 10	151
220	221	6.3 × 8.7	101	8 × 10	141					10 × 10	216		
330	331	8 × 10	160										
470	471					10 × 10	254					Case size	Rated
1000	102	10 × 10	313									$\phi$ D × L (mm)	ripple

Rated ripple current (mA<sub>RMS</sub>) at 105°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 refer to page 3 for the minimum order quantity.

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