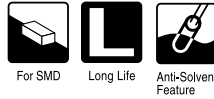


ALUMINUM ELECTROLYTIC CAPACITORS

UL series Chip Type, Long Life Assurance



- Chip type with load life of 5000 hours at +105°C.
- Designed for surface mounting on high density PC board.
- Compliant to the RoHS directive (2002/95/EC).



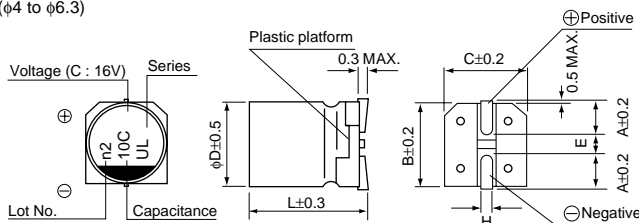
CB ← Long Life **UL** ← Long Life UA

Specifications

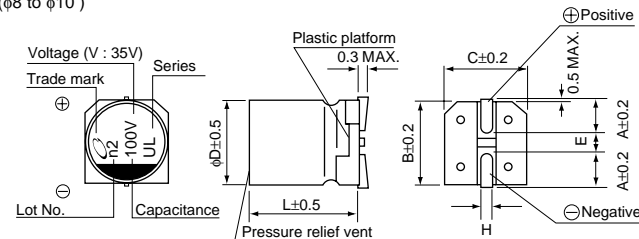
Item	Performance Characteristics																											
Category Temperature Range	-40 to +105°C																											
Rated Voltage Range	6.3 to 50V																											
Rated Capacitance Range	0.1 to 1000μF																											
Capacitance Tolerance	±20% at 120Hz, 20°C																											
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA), Max																											
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 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																				
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	4	3	2	2	2	2																				
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours at 105°C.		<table border="1"> <tr> <td>Capacitance change</td> <td colspan="6">Within ±30% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td colspan="6">300% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="6">Less than or equal to the initial specified value</td> </tr> </table>					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					
	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 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.																											
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.		<table border="1"> <tr> <td>Capacitance change</td> <td colspan="6">Within ±10% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td colspan="6">Less than or equal to the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="6">Less than or equal to the initial specified value</td> </tr> </table>					Capacitance change	Within ±10% of the initial capacitance value						tan δ	Less than or equal to the initial specified value						Leakage current	Less than or equal to the initial specified value					
	Capacitance change	Within ±10% of the initial capacitance value																										
	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

(φ4 to φ6.3)

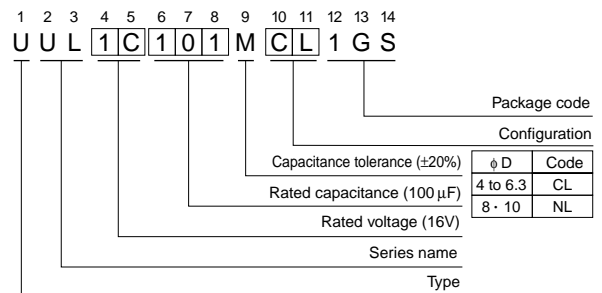


(φ8 to φ10)



Voltage	6.3	10	16	25	35	50
V	6.3	10	16	25	35	50
Code	j	A	C	E	V	H

Type numbering system (Example : 16V 100μF)



φD × L	(mm)					
	4 × 5.8	5 × 5.8	6.3 × 5.8	6.3 × 7.7	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	5.8	5.8	5.8	7.7	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

● Dimension table in next page.

■ Dimensions

Cap. (μ F)	V Code	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1											4×5.8	1.0
0.22	R22											4×5.8	2.6
0.33	R33											4×5.8	3.2
0.47	R47											4×5.8	3.8
1	010											4×5.8	6.2
2.2	2R2											4×5.8	11
3.3	3R3											4×5.8	14
4.7	4R7									4×5.8	15	5×5.8	19
10	100					4×5.8	18	5×5.8	25	5×5.8	25	6.3×5.8	30
22	220			5×5.8	30	5×5.8	30	6.3×5.8	42	6.3×5.8	42	6.3×7.7	49
33	330	5×5.8	35	5×5.8	35	6.3×5.8	48	6.3×5.8	48	6.3×7.7	57	8×10	77
47	470	5×5.8	36	6.3×5.8	50	6.3×5.8	50	6.3×7.7	63	8×10	92	8×10	92
100	101	6.3×5.8	60	6.3×7.7	81	6.3×7.7	81	8×10	116	10×10	151	10×10	151
220	221	6.3×7.7	101	8×10	141	10×10	216	10×10	216	10×10	216		
330	331	8×10	160	10×10	238	10×10	238	10×10	238				
470	471	10×10	254	10×10	254	10×10	254						
1000	102	10×10	313									Case size ϕ D×L(mm)	Rated ripple

Rated ripple current (mA_{rms}) 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.