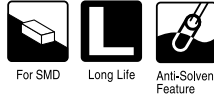


ALUMINUM ELECTROLYTIC CAPACITORS



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.
- Adapted to the RoHS directive (2002/95/EC).

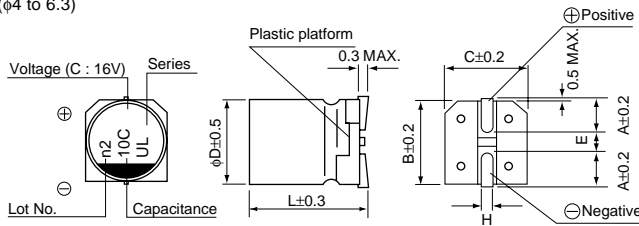


Specifications

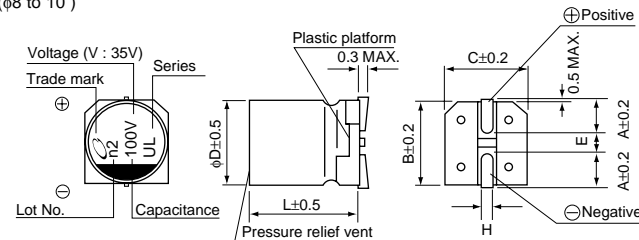
Item	Performance Characteristics																				
Category Temperature Range	-40 to +105°C																				
Rated Voltage Range	6.3 to 50V																				
Rated Capacitance Range	0.1 to 1000μF																				
Capacitance Tolerance	±20% at 120Hz, 20°C																				
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA), Max																				
tan δ	Measurement frequency : 120Hz, Temperature : 20°C																				
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.32</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.13</td> <td>0.12</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	tan δ (MAX.)	0.32	0.24	0.20	0.16	0.13	0.12						
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Stability at Low Temperature	Measurement frequency : 120Hz																				
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Impedance ratio Z-25°C / Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT / Z20 (MAX.) Z-40°C / Z+20°C</td> <td>10</td> <td>7</td> <td>5</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	Impedance ratio Z-25°C / Z+20°C	4	3	2	2	2	2	ZT / Z20 (MAX.) Z-40°C / Z+20°C	10	7	5	3	3
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Impedance ratio Z-25°C / Z+20°C	4	3	2	2	2	2															
ZT / Z20 (MAX.) Z-40°C / Z+20°C	10	7	5	3	3	3															
Endurance	After 5000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.																				
	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of initial value</td> </tr> <tr> <td>tan δ</td> <td>300% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±30% of initial value	tan δ	300% or less of initial specified value	Leakage current	Initial specified value or less														
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Leakage current	Initial specified value or less																				
Shelf Life	After storing the capacitors under no load at 105°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.																				
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.																				
	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>tan δ</td> <td>Initial specified value or less</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±10% of initial value	tan δ	Initial specified value or less	Leakage current	Initial specified value or less														
Capacitance change	Within ±10% of initial value																				
tan δ	Initial specified value or less																				
Leakage current	Initial specified value or less																				
Marking	Black print on the case top.																				

Chip Type

(φ4 to 6.3)

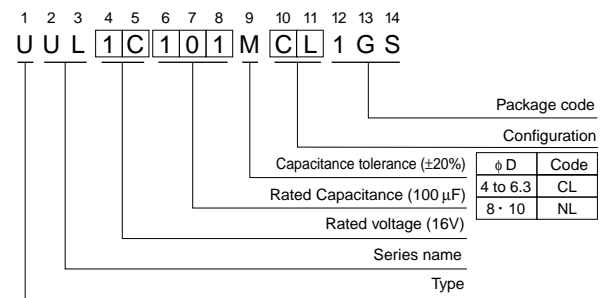


(φ8 to 10)



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	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.

CAT.8100W

■ 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 (mArms) 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.