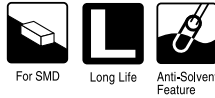


ALUMINUM ELECTROLYTIC CAPACITORS

UA series 6mmL Chip Type, Long Life Assurance



- Chip type with load life of 3000~5000 hours at +105°C.
- Designed for surface mounting on high density PC board.
- Adapted to the RoHS directive (2002/95/EC).

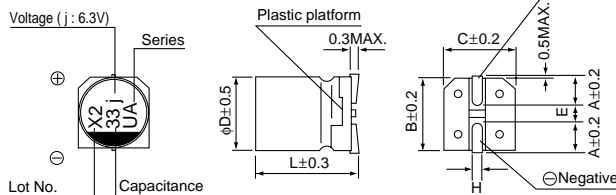


Specifications

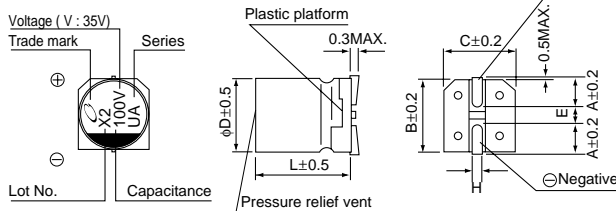
Item	Performance Characteristics																						
Category Temperature Range	-55 ~ +105°C																						
Rated Voltage Range	6.3 ~ 50V																						
Rated Capacitance Range	0.1 ~ 1000μF																						
Capacitance Tolerance	±20% at 120Hz, 20°C																						
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA) , whichever is greater.																						
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>0.28</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.)	0.28	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 colspan="2">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 rowspan="2">Impedance ratio ZT / Z20 (MAX.)</td> <td>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>Z-55°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 ZT / Z20 (MAX.)	Z-25°C / Z+20°C	4	3	2	2	2	2	Z-55°C / Z+20°C	10	7	5	3	3
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Endurance	<p>After 3000 hours' (5000 hours for φ8, φ10) application of rated voltage at 105°C , capacitors meet the characteristic requirements listed at right.</p> <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	<p>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.</p> <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																
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tan δ	Initial specified value or less																						
Leakage current	Initial specified value or less																						
Marking	Black print on the case top.																						

Chip Type

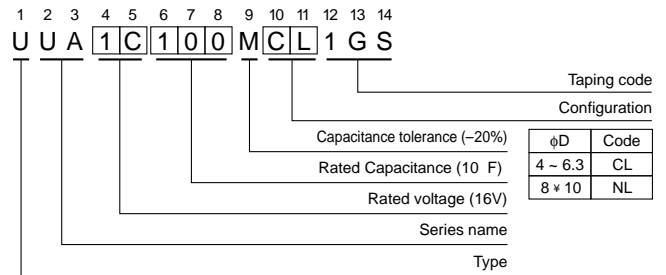
(φ4 ~ 6.3)



(φ8 × 10, φ10 × 10)



Type numbering system (Example : 16V 10μF)



Voltage

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

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 ~ 0.8	0.5 ~ 0.8	0.5 ~ 0.8	0.5 ~ 0.8	0.8 ~ 1.1	0.8 ~ 1.1

● Dimension table in next page.

■ Dimensions

Cap.(μF)	Code	V		6.3		10		16		25		35		50		
		0J	1A	1C	1E	1V	1H									
0.1	0R1													4×5.8	1	
0.22	R22													4×5.8	2.6	
0.33	R33													4×5.8	3.2	
0.47	R47													4×5.8	5	
1	010													4×5.8	8	
2.2	2R2													4×5.8	12	
3.3	3R3													4×5.8	17	
4.7	4R7												4×5.8	16	5×5.8	22
10	100					4×5.8	18	5×5.8	27	5×5.8	27	6.3×5.8	32	6.3×7.7	58	
22	220	4×5.8	22	5×5.8	30	5×5.8	30	6.3×5.8	44	6.3×5.8	44	6.3×7.7	57	8×10	140	
33	330	5×5.8	35	5×5.8	35	6.3×5.8	48	6.3×5.8	50	6.3×7.7	57	8×10	92	8×10	170	
47	470	5×5.8	38	6.3×5.8	50	6.3×5.8	50	6.3×7.7	63	8×10	92	8×10	151	10×10	310	
100	101	6.3×5.8	69	6.3×7.7	81	6.3×7.7	81	8×10	116	10×10	151	10×10	375			
220	221	6.3×7.7	120	8×10	141	10×10	216	10×10	320	10×10	450					
330	331	8×10	290	10×10	290	10×10	290	10×10	450							
470	471	10×10	320	10×10	320	10×10	320									
1000	102	10×10	410													

Rated Ripple (mArms) at 105°C 120Hz

● Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz~
Coefficient	0.70	1.00	1.17	1.36	1.50

- Taping specifications are given in page 24.
- Recommended land size, soldering by reflow are given in page 25, 26.
- Please refer to page 3 for the minimum order quantity.