

ALUMINUM ELECTROLYTIC CAPACITORS

UQ Chip Type, For Audio Equipment
Wide Temperature Range
series



- Chip type acoustic series within the wide temperature range.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC)

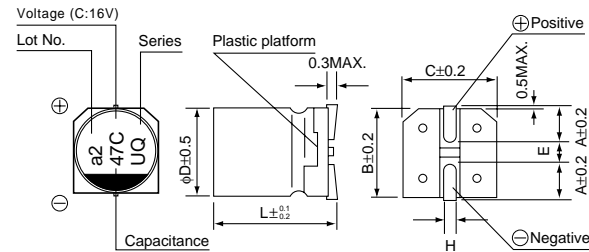


Specifications

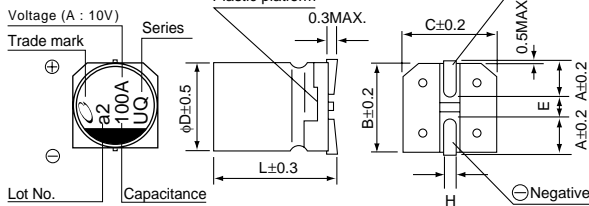
Item	Performance Characteristics								
Category Temperature Range	-40 to +105°C								
Rated Voltage Range	6.3 to 50V								
Rated Capacitance Range	0.1 to 1000μF								
Capacitance Tolerance	±20% (120Hz, 20°C)								
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.03 CV or 4 (μA), whichever is greater.								
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								
	Impedance ratio ZT / Z20 (MAX.)	Rated voltage (V)		6.3	10	16	25	35	50
		Z-25°C / Z+20°C	4	3	2	2	2	2	
Z-40°C / Z+20°C	8	5	4	3	3	3			
Endurance	After 1000 hours' application of rated voltage at 105°C, capacitors meet the characteristics requirements listed at right.	Capacitance change	Within ±20% of initial value						
		tan δ	200% or less of initial specified value						
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 characteristics requirements listed at right.	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

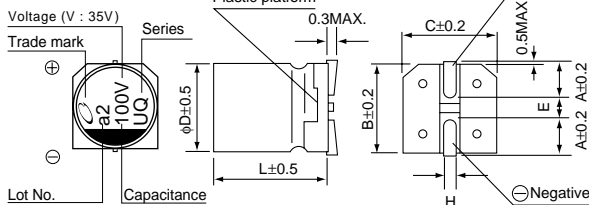
(φ4 to φ6.3)



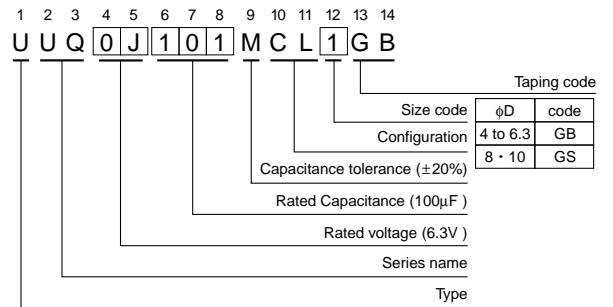
(φ8 × 6.2L)



(φ8 × 10L, φ10 × 10L)



Type numbering system (Example : 6.3V 100μF)



φD × L	4 × 5.4	5 × 5.4	6.3 × 5.4	8 × 6.2	8 × 10	10 × 10
A	1.8	2.1	2.4	3.3	2.9	3.2
B	4.3	5.3	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	6.2	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

Rated voltage

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

● 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 × 5.4	1.0
0.22	R22											4 × 5.4	2.6
0.33	R33											4 × 5.4	3.2
0.47	R47											4 × 5.4	3.8
1	010											4 × 5.4	6.2
2.2	2R2											4 × 5.4	11
3.3	3R3											4 × 5.4	14
4.7	4R7							4 × 5.4	13	4 × 5.4	15	5 × 5.4	19
10	100			4 × 5.4	22	4 × 5.4	18	5 × 5.4	23	5 × 5.4	25	6.3 × 5.4	30
22	220	4 × 5.4	22	5 × 5.4	27	5 × 5.4	30	6.3 × 5.4	38	6.3 × 5.4	42	8 × 6.2	51
33	330	5 × 5.4	30	5 × 5.4	35	6.3 × 5.4	40	6.3 × 5.4	48	8 × 6.2	59	8 × 10	140
47	470	5 × 5.4	36	6.3 × 5.4	46	6.3 × 5.4	50	8 × 6.2	66	8 × 10	155	8 × 10	180
100	101	6.3 × 5.4	60	○ 6.3 × 5.4	60 (90)	● 8 × 6.2	102 (210)	8 × 10	155	10 × 10	300	10 × 10	220
220	221	● 8 × 6.2	102 (210)	● 8 × 6.2	102 (210)	△ 8 × 10	210 (310)	10 × 10	300	10 × 10	300		
330	331	● 8 × 6.2	102 (210)	△ 8 × 10	210 (310)	△ 8 × 10	210 (310)						
470	471	△ 8 × 10	210 (310)	△ 8 × 10	210 (310)	△ 8 × 10	210 (310)						
1000	102	10 × 10	310									Case size ϕ D × L (mm)	Rated ripple

Size $\phi 8 \times 6.2L$ is available for capacitors marked. "○"

Size $\phi 8 \times 10L$ is available for capacitors marked. "●"

Size $\phi 10 \times 10L$ is available for capacitors marked. "△"

※ In this case, $\overline{6}$ will be put at 12th digit of type numbering system.

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.