

ALUMINUM ELECTROLYTIC CAPACITORS



Chip Type, For Audio Equipment
Wide Temperature Range



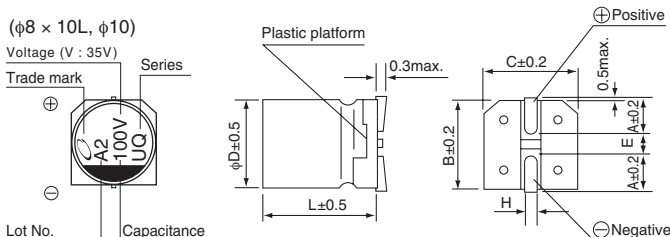
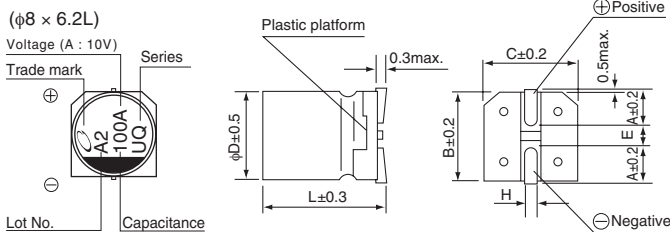
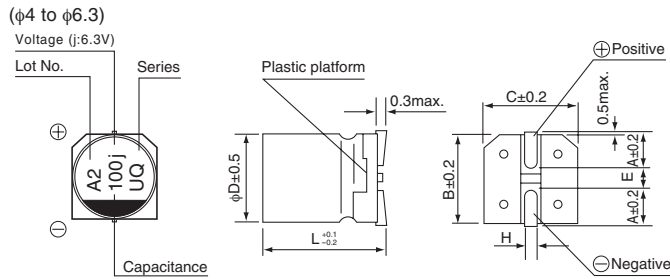
- Chip type acoustic series within the wide temperature range.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

Specifications

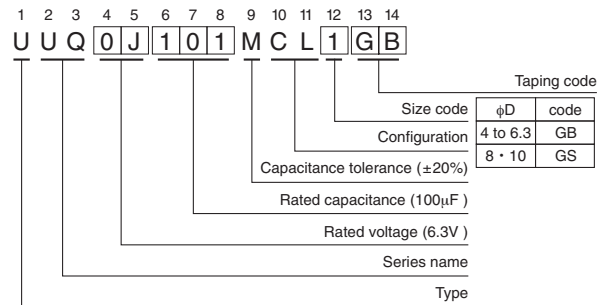
Item	Performance Characteristics							
Category Temperature Range	-40 to +105°C							
Rated Voltage Range	6.3 to 50V							
Rated Capacitance Range	1 to 1000μF							
Capacitance Tolerance	±20% (120Hz, 20°C)							
Leakage Current ※	After 1 minute's application of rated voltage at 20°C, leakage current 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							
	Impedance ratio	Z(-25°C) / Z(+20°C)	4	3	2	2	2	2
	(max.)	Z(-40°C) / Z(+20°C)	8	5	4	3	3	3
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.						Capacitance change	Within ±20% of the initial capacitance value
							tan δ	200% 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
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.						Capacitance change	Within ±10% of the initial capacitance value
							tan δ	Less than or equal to the initial specified value
Marking	Black print on the case top.						Leakage current	Less than or equal to the initial specified value

※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

Chip Type



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

Voltage

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

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

● Dimension table in next page.



■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20°C after 1 minute)	Rated Ripple (mArms) (105°C/120Hz)	Part Number
6.3 (0J)	22	4×5.4	0.30	4.158	22	UUQ0J220MCL1GB
	33	5×5.4	0.30	6.237	30	UUQ0J330MCL1GB
	47	5×5.4	0.30	8.883	36	UUQ0J470MCL1GB
	100	6.3×5.4	0.30	18.9	60	UUQ0J101MCL1GB
	220	8×6.2	0.30	41.58	102	UUQ0J221MCL1GS
	220	8×10	0.30	41.58	210	UUQ0J221MCL6GS
	330	8×6.2	0.30	62.37	102	UUQ0J331MCL1GS
	330	8×10	0.30	62.37	210	UUQ0J331MCL6GS
	470	8×10	0.30	88.83	210	UUQ0J471MCL1GS
	470	10×10	0.30	88.83	310	UUQ0J471MCL6GS
	1000	10×10	0.30	189	310	UUQ0J102MCL1GS
10 (1A)	10	4×5.4	0.26	4	22	UUQ1A100MCL1GB
	22	5×5.4	0.26	6.6	27	UUQ1A220MCL1GB
	33	5×5.4	0.26	9.9	35	UUQ1A330MCL1GB
	47	6.3×5.4	0.26	14.1	46	UUQ1A470MCL1GB
	100	6.3×5.4	0.26	30	60	UUQ1A101MCL1GB
	100	8×6.2	0.26	30	90	UUQ1A101MCL6GS
	220	8×6.2	0.26	66	102	UUQ1A221MCL1GS
	220	8×10	0.26	66	210	UUQ1A221MCL6GS
	330	8×10	0.26	99	210	UUQ1A331MCL1GS
	330	10×10	0.26	99	310	UUQ1A331MCL6GS
	470	8×10	0.26	141	210	UUQ1A471MCL1GS
470	10×10	0.26	141	310	UUQ1A471MCL6GS	
16 (1C)	10	4×5.4	0.22	4.8	18	UUQ1C100MCL1GB
	22	5×5.4	0.22	10.56	30	UUQ1C220MCL1GB
	33	6.3×5.4	0.22	15.84	40	UUQ1C330MCL1GB
	47	6.3×5.4	0.22	22.56	50	UUQ1C470MCL1GB
	100	8×6.2	0.22	48	102	UUQ1C101MCL1GS
	100	8×10	0.22	48	210	UUQ1C101MCL6GS
	220	8×10	0.22	105.6	210	UUQ1C221MCL1GS
	220	10×10	0.22	105.6	310	UUQ1C221MCL6GS
	330	8×10	0.22	158.4	210	UUQ1C331MCL1GS
	330	10×10	0.22	158.4	310	UUQ1C331MCL6GS
	470	8×10	0.22	225.6	210	UUQ1C471MCL1GS
470	10×10	0.22	225.6	310	UUQ1C471MCL6GS	
25 (1E)	4.7	4×5.4	0.16	4	13	UUQ1E4R7MCL1GB
	10	5×5.4	0.16	7.5	23	UUQ1E100MCL1GB
	22	6.3×5.4	0.16	16.5	38	UUQ1E220MCL1GB
	33	6.3×5.4	0.16	24.75	48	UUQ1E330MCL1GB
	47	8×6.2	0.16	35.25	66	UUQ1E470MCL1GS
	100	8×10	0.16	75	155	UUQ1E101MCL1GS
	220	10×10	0.16	165	300	UUQ1E221MCL1GS



■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D \times L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 1 minute)	Rated Ripple (mArms) (105°C/120Hz)	Part Number
35 (1V)	4.7	4 \times 5.4	0.13	4.935	15	UUQ1V4R7MCL1GB
	10	5 \times 5.4	0.13	10.5	25	UUQ1V100MCL1GB
	22	6.3 \times 5.4	0.13	23.1	42	UUQ1V220MCL1GB
	33	8 \times 6.2	0.13	34.65	59	UUQ1V330MCL1GS
	47	8 \times 10	0.13	49.35	155	UUQ1V470MCL1GS
	100	10 \times 10	0.13	105	300	UUQ1V101MCL1GS
	220	10 \times 10	0.13	231	300	UUQ1V221MCL1GS
50 (1H)	1	4 \times 5.4	0.12	4	6.2	UUQ1H010MCL1GB
	2.2	4 \times 5.4	0.12	4	11	UUQ1H2R2MCL1GB
	3.3	4 \times 5.4	0.12	4.95	14	UUQ1H3R3MCL1GB
	4.7	5 \times 5.4	0.12	7.05	19	UUQ1H4R7MCL1GB
	10	6.3 \times 5.4	0.12	15	30	UUQ1H100MCL1GB
	22	8 \times 6.2	0.12	33	51	UUQ1H220MCL1GS
	33	8 \times 10	0.12	49.5	140	UUQ1H330MCL1GS
	47	8 \times 10	0.12	70.5	180	UUQ1H470MCL1GS
	100	10 \times 10	0.12	150	220	UUQ1H101MCL1GS

- For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.