ALUMINUM ELECTROLYTIC CAPACITORS

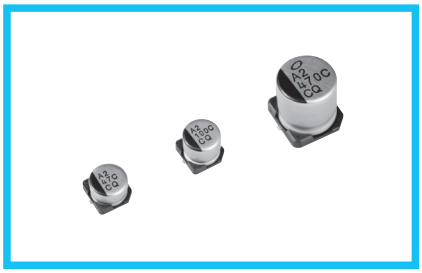
nichicon

UCQ

Chip Type, For Audio Equipment
Wide Temperature Range

For SMD | For Audio Use | Anti-Solvent Feature

- 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.



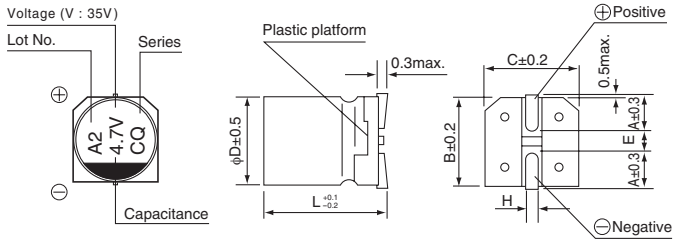
■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105°C
Rated Voltage Range	10 to 35V
Rated Capacitance Range	4.7 to 680μF
Capacitance Tolerance	±20% (120Hz, 20°C)
Leakage Current ※	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C Rated voltage (V): 10 / 16 / 25 / 35 tan δ (max.): 0.26 / 0.22 / 0.16 / 0.13
Stability at Low Temperature	Measurement frequency : 120Hz Rated voltage (V): 10 / 16 / 25 / 35 Impedance ratio (max.) Z(−25°C) / Z(+20°C): 3 / 2 / 2 / 2 Impedance ratio (max.) Z(−40°C) / Z(+20°C): 5 / 4 / 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 2000 hours (1000 hours for 4.5L) at 105°C. 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. 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.

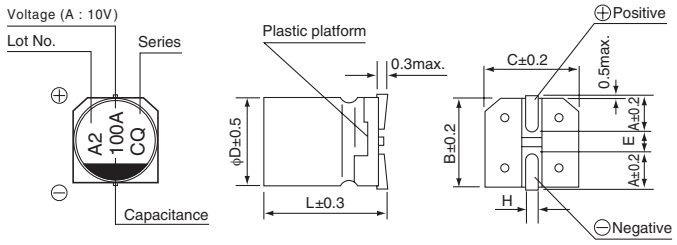
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■Chip Type

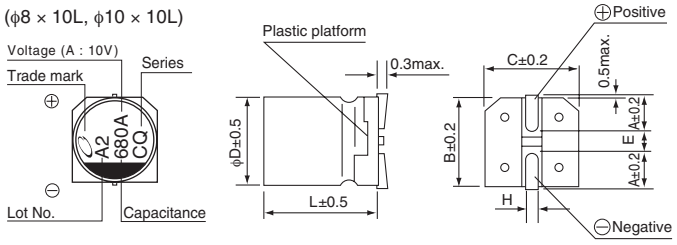
(φ4 × 4.5L, φ5 × 4.5L, φ6.3 × 4.5L)



(φ6.3 × 5.8L, φ6.3 × 7.7L)



(φ8 × 10L, φ10 × 10L)



● Dimension table in next page.

Type numbering system (Example : 35V 4.7μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	C	Q	1	V	4	R	7	M	C	L	1	G	B

Taping code

Size code	φD	code
	4.5L	GB
	φ6.3x5.8L/7.7L	GS
	8・10	GS

Size code
Configuration
Capacitance tolerance (±20%)
Rated capacitance (4.7μF)
Rated voltage (35V)
Series name
Type

(mm)

φD × L	4 × 4.5	5 × 4.5	6.3 × 4.5	6.3 × 5.8	6.3 × 7.7	8 × 10	10 × 10
A	1.8	2.1	2.4	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	2.2	3.1	4.5
L	4.5	4.5	4.5	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	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Rated voltage

V	10	16	25	35
Code	A	C	E	V

● 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

UCQ

■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 2 minutes)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
10 (1A)	22	5×4.5	0.26	3	30	UCQ1A220MCL1GB
	33	5×4.5	0.26	3.3	30	UCQ1A330MCL1GB
	47	6.3×4.5	0.26	4.7	40	UCQ1A470MCL1GB
	100	6.3×5.8	0.26	10	100	UCQ1A101MCL1GS
	220	6.3×7.7	0.26	22	120	UCQ1A221MCL1GS
	330	8×10	0.26	33	250	UCQ1A331MCL1GS
	470	8×10	0.26	47	250	UCQ1A471MCL1GS
	680	10×10	0.26	68	400	UCQ1A681MCL1GS
16 (1C)	10	4×4.5	0.22	3	15	UCQ1C100MCL1GB
	22	5×4.5	0.22	3.52	30	UCQ1C220MCL1GB
	33	6.3×4.5	0.22	5.28	40	UCQ1C330MCL1GB
	47	6.3×4.5	0.22	7.52	40	UCQ1C470MCL1GB
	100	6.3×5.8	0.22	16	100	UCQ1C101MCL1GS
	220	8×10	0.22	35.2	250	UCQ1C221MCL1GS
	330	8×10	0.22	52.8	250	UCQ1C331MCL1GS
	470	10×10	0.22	75.2	400	UCQ1C471MCL1GS
25 (1E)	4.7	4×4.5	0.16	3	15	UCQ1E4R7MCL1GB
	10	5×4.5	0.16	3	30	UCQ1E100MCL1GB
	22	6.3×4.5	0.16	5.5	40	UCQ1E220MCL1GB
	33	6.3×4.5	0.16	8.25	40	UCQ1E330MCL1GB
	47	6.3×5.8	0.16	11.75	100	UCQ1E470MCL1GS
	100	6.3×7.7	0.16	25	120	UCQ1E101MCL1GS
	220	8×10	0.16	55	250	UCQ1E221MCL1GS
	330	10×10	0.16	82.5	400	UCQ1E331MCL1GS
	470	10×10	0.16	117.5	400	UCQ1E471MCL1GS
35 (1V)	4.7	4×4.5	0.13	3	15	UCQ1V4R7MCL1GB
	10	5×4.5	0.13	3.5	30	UCQ1V100MCL1GB
	22	6.3×4.5	0.13	7.7	40	UCQ1V220MCL1GB
	33	6.3×5.8	0.13	11.55	100	UCQ1V330MCL1GS
	47	6.3×7.7	0.13	16.45	120	UCQ1V470MCL1GS
	100	8×10	0.13	35	250	UCQ1V101MCL1GS
	220	10×10	0.13	77	400	UCQ1V221MCL1GS
	330	10×10	0.13	115.5	400	UCQ1V331MCL1GS

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

Mouser Electronics

Authorized Distributor

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Nichicon:

UCQ1C101MCL1GS UCQ1C221MCL1GS UCQ1E220MCL1GB UCQ1V220MCL1GB UCQ1A331MCL1GS
UCQ1E330MCL1GB UCQ1V330MCL1GS UCQ1A471MCL1GS UCQ1E470MCL1GS UCQ1V101MCL1GS
UCQ1A101MCL1GS UCQ1C331MCL1GS UCQ1C470MCL1GB UCQ1C471MCL1GS UCQ1A221MCL1GS
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UCQ1E221MCL1GS UCQ1E471MCL1GS UCQ1E4R7MCL1GB