ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UCJ

Chip Type, High Reliability.
Low temperature ESR specification.

For SMD | Long Life | Anti-Solvent Feature

- Chip type, high temperature range, for +125°C use.
- Added ESR specification after the test at −40°C (φ6.3 sizes provide only for the first stage.)
- 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.

UCZ (Low ESR Long Life) — UCJ — (Added ESR specification at −40°C) UUB

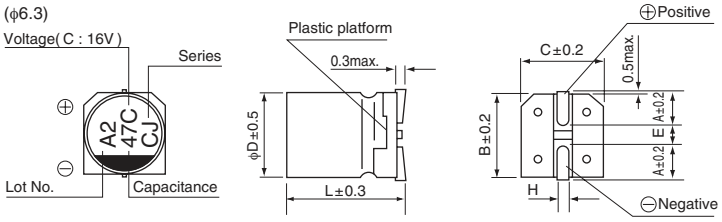
■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +125°C
Rated Voltage Range	10 to 50V
Rated Capacitance Range	10 to 470μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current ※	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4(μA) , whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C Rated voltage (V): 10 / 16 / 25 / 35 / 50 tan δ (max.): 0.32 / 0.24 / 0.21 / 0.18 / 0.18
Stability at Low Temperature	Measurement frequency : 120Hz Rated voltage (V): 10 / 16 / 25 / 35 / 50 Impedance ratio ZT / Z20 (max.) Z(−40°C) / Z(+20°C): 12 / 8 / 6 / 4 / 4
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 at 125°C. Capacitance change: Within ±30% of the initial capacitance value tan δ: 300% or less than the intial specified value Leakage current: Less than or equal to the initial specified value
Shelf Life	After storing the capacitors under no load at 125°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.

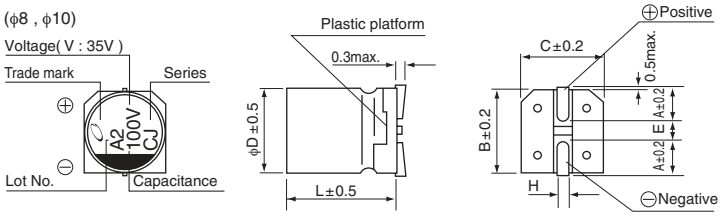
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■Chip Type

(φ6.3)



(φ8 , φ10)



Type numbering system (Example : 10V 100μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	C	J	1	A	1	0	1	M	C	L	1	G	S

- Taping code
- Configuration
- Capacitance tolerance (±20%)
- Rated capacitance (100μF)
- Rated voltage (10V)
- Series name
- Type

(mm)

φD×L	6.3×8.7	8×10	10×10
A	2.4	2.9	3.2
B	6.6	8.3	10.3
C	6.6	8.3	10.3
E	2.2	3.1	4.5
L	8.7	10	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Voltage

V	10	16	25	35	50
Code	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	0.35	0.50	0.64	0.83	1.00

●Dimension table in next page.

UCJ

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	ESR (Ω) max. (−40℃/100kHz)		Rated Ripple (mArms) (125℃/100kHz)	Part Number
					Initial	after endurance test		
10 (1A)	100	6.3×8.7	0.32	30	14	—	95	UCJ1A101MCL1GS
	220	8×10	0.32	66	2.0	6.0	250	UCJ1A221MCL1GS
	330	10×10	0.32	99	1.5	4.5	400	UCJ1A331MCL1GS
	470	10×10	0.32	141	1.5	4.5	400	UCJ1A471MCL1GS
16 (1C)	47	6.3×8.7	0.24	22.56	14	—	95	UCJ1C470MCL1GS
	100	8×10	0.24	48	2.0	6.0	250	UCJ1C101MCL1GS
	220	10×10	0.24	105.6	1.5	4.5	400	UCJ1C221MCL1GS
	330	10×10	0.24	158.4	1.5	4.5	400	UCJ1C331MCL1GS
25 (1E)	22	6.3×8.7	0.21	16.5	14	—	95	UCJ1E220MCL1GS
	33	6.3×8.7	0.21	24.75	14	—	95	UCJ1E330MCL1GS
	47	6.3×8.7	0.21	35.25	14	—	95	UCJ1E470MCL1GS
	100	8×10	0.21	75	2.0	6.0	250	UCJ1E101MCL1GS
	220	10×10	0.21	165	1.5	4.5	400	UCJ1E221MCL1GS
	330	10×10	0.21	247.5	1.5	4.5	400	UCJ1E331MCL1GS
35 (1V)	10	6.3×8.7	0.18	10.5	14	—	95	UCJ1V100MCL1GS
	22	6.3×8.7	0.18	23.1	14	—	95	UCJ1V220MCL1GS
	33	6.3×8.7	0.18	34.65	14	—	95	UCJ1V330MCL1GS
	47	6.3×8.7	0.18	49.35	14	—	95	UCJ1V470MCL1GS
	100	10×10	0.18	105	1.5	4.5	400	UCJ1V101MCL1GS
	220	10×10	0.18	231	1.5	4.5	400	UCJ1V221MCL1GS
50 (1H)	10	6.3×8.7	0.18	15	14	—	95	UCJ1H100MCL1GS
	22	6.3×8.7	0.18	33	14	—	95	UCJ1H220MCL1GS
	33	8×10	0.18	49.5	2.0	6.0	200	UCJ1H330MCL1GS
	47	10×10	0.18	70.5	1.5	4.5	330	UCJ1H470MCL1GS
	100	10×10	0.18	150	1.5	4.5	330	UCJ1H101MCL1GS

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