ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

CJ

Chip Type, High Reliability.
Low temperature ESR specification.
series

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 using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).

CJ — Added ESR specification at –40°C — UB

■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, leakage current is not more than 0.03CV or 4(μA), whichever is greater.
tan δ	Measurement frequency : 120Hz, Temperature : 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 — After 2000 hours' application of rated voltage at 125°C, capacitors meet the characteristic requirements listed at right.

Capacitance change	Within ±30% of initial value
tan δ	300% or less of intial specified value
Leakage current	Initial specified value or less

Shelf Life — After storing the capacitors under no load at 125°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.

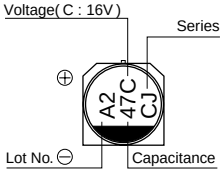
Resistance to soldering heat — The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.

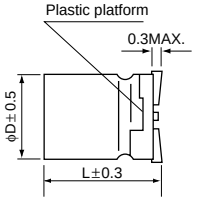
Capacitance change	Within ±10% of initial value
tan δ	Initial specified value or less
Leakage current	Initial specified value or less

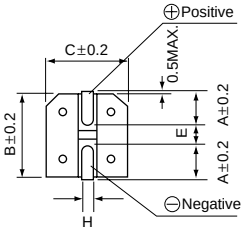
Marking — Black print on the case top.

■Chip Type

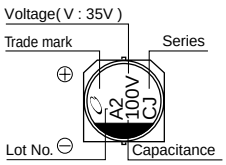
(φ6.3 × 8.7)

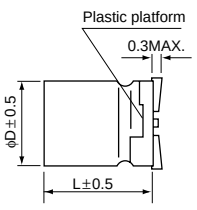


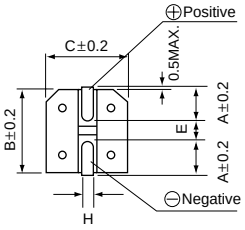




(φ8 × 10, φ10 × 10)







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

- 14: Taping code
- 12 13: Configuration
- 9: Capacitance tolerance (±20%)
- 6 7 8: Rated Capacitance (100μF)
- 4 5: Rated voltage (10V)
- 3: Series name
- 1 2: 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

■Dimensions

Cap.(μF) \ V / Code	10				16				25				35				50			
		1A				1C				1E				1V				1H			
10	100													6.3×8.7	14	–	95	6.3×8.7	14	–	95
22	220									6.3×8.7	14	–	95	6.3×8.7	14	–	95	6.3×8.7	14	–	95
33	330									6.3×8.7	14	–	95	6.3×8.7	14	–	95	8×10	2.0	6.0	200
47	470					6.3×8.7	14	–	95	6.3×8.7	14	–	95	6.3×8.7	14	–	95	10×10	1.5	4.5	330
100	101	6.3×8.7	14	–	95	8×10	2.0	6.0	250	8×10	2.0	6.0	250	10×10	1.5	4.5	400	10×10	1.5	4.5	330
220	221	8×10	2.0	6.0	250	10×10	1.5	4.5	400	10×10	1.5	4.5	400	10×10	1.5	4.5	400	Case size φD×L (mm)	Initial	after torture test	Rated ripple
330	331	10×10	1.5	4.5	400	10×10	1.5	4.5	400	10×10	1.5	4.5	400						ESR		
470	471	10×10	1.5	4.5	400																

Max. ESR (Ω) at -40°C 100kHz, Rated Ripple (mArms) at 125°C 100kHz

●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

- 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.