ALUMINUM ELECTROLYTIC CAPACITORS

UCH

Chip Type, High Reliability.
Low temperature ESR specification.

For SMD | Long Life | Anti-Solvent Feature

Expanded



- Added ESR specification after the test at -40°C.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).

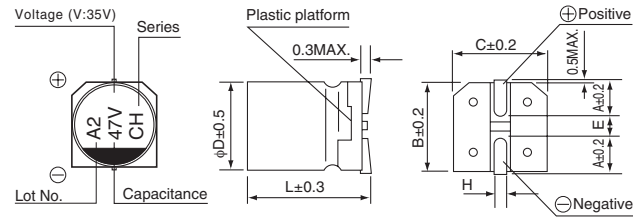
UCH ← Low ESR → UCZ

■Specifications

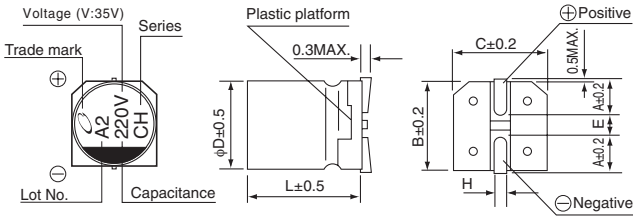
Item	Performance Characteristics
Category Temperature Range	−40 to +125°C
Rated Voltage Range	35V
Rated Capacitance Range	47 to 330μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV.
Tangent of loss angle (tan δ)	Rated voltage (V): 35 / tan δ (MAX.): 0.16 — Measurement frequency : 120Hz at 20°C
Stability at Low Temperature	Rated voltage (V): 35 / Impedance ratio ZT / Z20 (MAX.) Z−40°C / Z+20°C: 3 — Measurement frequency : 120Hz
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 initial 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.

■Chip Type

(φ 6.3)



(φ8, φ10)



Type numbering system (Example : 35V 47μF)

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

- 1–2: Type
- 3: Series name
- 4: Rated voltage (35V)
- 5–7: Rated capacitance (47μF)
- 8: Capacitance tolerance (±20%)
- 9–10: Configuration
- 11: Size code
- 12–14: Taping code

Rated Voltage

V	35
Code	V

(mm)

φDXL	6.3×7.7	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	7.7	10	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 11

■Dimensions

Cap. (μF) \ V	Code \ 35	1V					
47	470	6.3×7.7	0.30	3	6	197	
100	101	6.3×7.7	0.30	3	6	197	
220	221	8 ×10	0.20	2	4.5	270	
330	331	10 ×10	0.15	1.5	3.5	500	
		Case size φD × L (mm)	Initial 20°C 100kHz	Initial -40°C 100kHz	after endurance test 2000hours -40°C 400kHz	Rated ripple
			ESR			

Max. ESR (Ω) at 20°C / -40°C 100k to 400kHz,
Rated ripple Current (mArms) at 125°C 100kHz

● Frequency coefficient of rated ripple current

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz or more
Coefficient	0.35	0.50	0.64	0.83	1.00