

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**

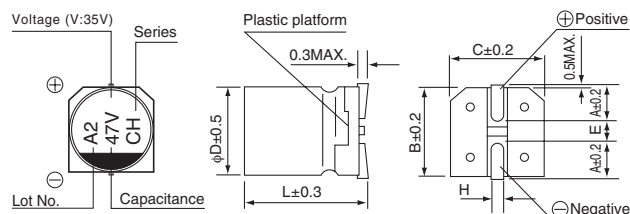


Specifications

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	Measurement frequency : 120Hz at 20°C						
	tan δ (MAX.)	0.16							
Stability at Low Temperature	Rated voltage (V)	35	Measurement frequency : 120Hz						
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C 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 at 125°C.		<table><tr><td>Capacitance change</td><td>Within ±30% of the initial capacitance value</td></tr><tr><td>tan δ</td><td>300% or less than the initial specified value</td></tr><tr><td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr></table>	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
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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.		<table><tr><td>Capacitance change</td><td>Within ±10% of the initial capacitance value</td></tr><tr><td>tan δ</td><td>Less than or equal to the initial specified value</td></tr><tr><td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr></table>	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
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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

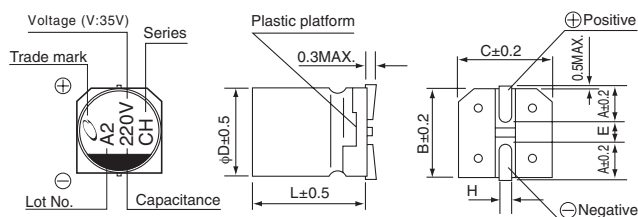
(φ 6.3)



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
Taping code			Size code		Configuration		Capacitance tolerance (±20%)		Rated capacitance (47μF)		Rated voltage (35V)		Series name
Type													

(φ 8, φ 10)



Rated Voltage	
V	35
Code	V

	(mm)		
Code	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 1.1

Dimensions

V		35	
Cap. (μF)	Code	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	Initial Initial Initial Rated
		φD × L	20°C -40°C 12000hrs 12000hrs
		(mm)	100kHz 100kHz 100kHz 100kHz
			ESR

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