

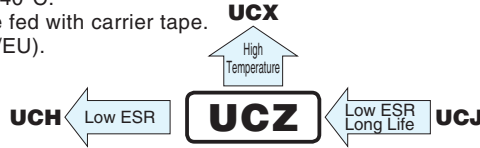
ALUMINUM ELECTROLYTIC CAPACITORS

UCZ

Chip Type, High Reliability.
Low temperature ESR specification.



- Chip type, high temperature range, for +125°C use.
- 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).

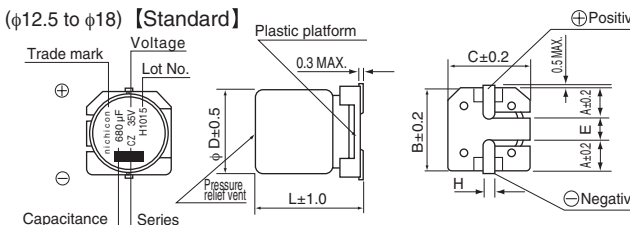
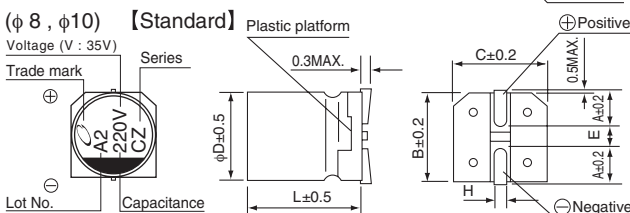
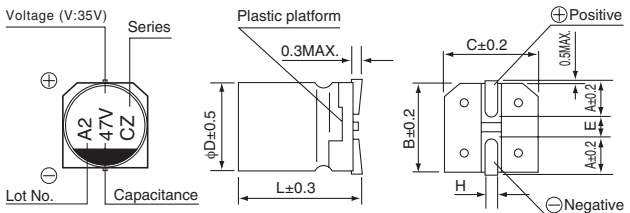


Specifications

Item	Performance Characteristics									
Category Temperature Range	-40 to +125°C									
Rated Voltage Range	10 to 100V									
Rated Capacitance Range	10 to 3300μF									
Capacitance Tolerance	±20% at 120Hz, 20°C									
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3μA, whichever is greater.									
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C									
	Rated voltage (V)	10	16	25	35	50	63	80	100	
	tan δ (MAX.)	0.30	0.23	0.18	0.16	0.16	0.12	0.12	0.10	
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.									
Stability at Low Temperature	Rated voltage (V)									Measurement frequency : 120Hz
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C	12	8	6	4	4	3	3	
Endurance	After continuous application of rated voltage at 125°C and then restoring down to 20°C, the readings of measurements shall meet below.									
	Case size	φ6.3 × 5.8L	φ6.3 × 7.7L	φ8 to φ12.5	φ16,18 × 16.5L	φ16,18 × 21.5L				
	Endurance time	1000hrs.	2000hrs.	3000hrs.	3500hrs.	4000hrs.				
	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								
Marking	Black print on the case top.									
	Leakage current	Less than or equal to the initial specified value								

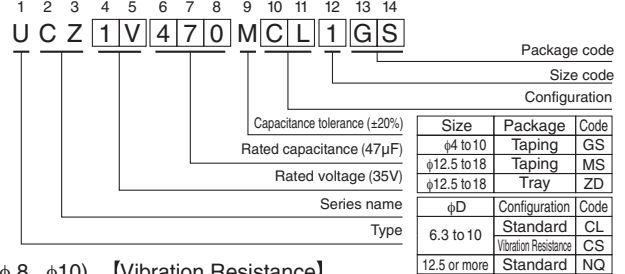
Chip Type

(φ 6.3) 【Standard】 ※φ6.3 × 5.8L : The vibration structure-resistant product can't support.
φ6.3 × 7.7L : The vibration structure-resistant product is available.

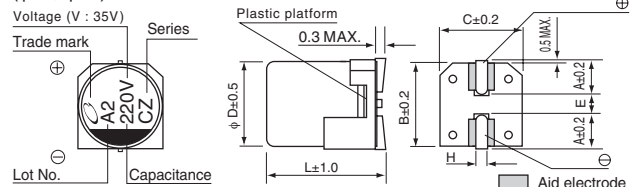


※φ12.5 to φ18 :
The vibration structure-resistant product is also available upon request, please ask for details.

Type numbering system (Example : 35V 47μF)



(φ 8, φ 10) 【Vibration Resistance】



Standard	(mm)										Vibration Resistance (mm)		
φD×L	6.3×5.8	6.3×7.7	8×10	10×10	12.5×13.5	16×16.5	16×21.5	18×16.5	18×21.5	φD×L	8×10	10×10	
A	2.4	2.4	2.9	3.2	4.8	5.4	5.4	6.4	6.4	A	2.9	3.2	
B	6.6	6.6	8.3	10.3	13.6	17.1	17.1	19.1	19.1	B	8.3	10.3	
C	6.6	6.6	8.3	10.3	13.6	17.1	17.1	19.1	19.1	C	8.3	10.3	
E	2.2	2.2	3.1	4.5	4	6.3	6.3	6.3	6.3	E	3.1	4.5	
L	5.8	7.7	10	10	13.5	16.5	21.5	16.5	21.5	L	10	10	
H	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	H	1.1 to 1.5	1.1 to 1.5	

Voltage		10	16	25	35	50	63	80	100
V									
Code		A	C	E	V	H	J	K	2A

UCZ

■ Dimensions

Cap. (μF)	V Code	10				16				25				35				50							
		1A				1C				1E				1V				1H							
10	100														6.3 × 5.8	1.60	24	-	69	6.3 × 5.8	2.80	42	-	51	
22	220														6.3 × 5.8	1.60	24	-	69	6.3 × 7.7	0.50	5	40	197	
33	330										6.3 × 5.8	1.60	24	-	69	6.3 × 7.7	0.45	5	40	197	● 6.3 × 7.7	0.50	5	40	197
47	470																				8 × 10	0.25	3.5	6	270
68	680																				8 × 10	0.20	3	4.5	270
100	101																				8 × 10	0.20	3	4.5	270
220	221																				8 × 10	0.20	3	4.5	270
330	331																				10 × 10	0.15	2	3.5	500
390	391																								
470	471																				10 × 10	0.15	2	3.5	500
560	561																								
680	681																								
820	821																								
1000	102																								
1200	122																								
1400	142																								
1600	162																								
2200	222																								
2700	272																								
3300	332																								

Cap. (μF)	V Code	63				80				100						
		1J				1K				2A						
10	100	6.3 × 7.7	2.00	100	-	60	8 × 10	0.75	50	-	70	8 × 10	0.75	50	-	70
22	220	8 × 10	0.70	35	-	100	● 8 × 10	0.75	50	-	70	● 8 × 10	0.75	50	-	70
33	330	● 8 × 10	0.70	35	-	100	● 8 × 10	0.75	50	-	70	10 × 10	0.55	35	-	115
47	470	● 8 × 10	0.70	35	-	100	10 × 10	0.55	35	-	115	10 × 10	0.55	35	-	115
82	820											12.5 × 13.5	0.28	1.9	22	700
150	151	12.5 × 13.5	0.20	1.3	14	1000	12.5 × 13.5	0.28	1.9	14	700	16 × 16.5	0.19	1.4	4.8	1000
180	181	12.5 × 13.5	0.20	1.3	14	1000						18 × 16.5	0.17	1.1	3.9	1100
220	221	12.5 × 13.5	0.20	1.3	14	1000						16 × 21.5	0.12	0.8	2.6	1600
270	271						16 × 16.5	0.19	1.4	4.8	1000					
300	301											18 × 21.5	0.11	0.7	2.4	1700
330	331						18 × 16.5	0.17	1.1	3.9	1100					
390	391	16 × 16.5	0.13	0.9	4.8	1900	16 × 21.5	0.12	0.8	2.6	1600					
470	471	18 × 16.5	0.11	0.82	3.9	2000										
520	521						18 × 21.5	0.11	0.7	2.4	1700					
560	561	16 × 21.5	0.07	0.46	2.0	2500										
750	751	18 × 21.5	0.068	0.44	1.8	2600										

※ Guaranteed time of ESR after endurance test

Size	Guaranteed time
φ6.3 × 5.8L	-
φ6.3 × 7.7L, φ8 × 10L	10 to 50V 2000hrs.
φ10 × 10L	63 to 100V -
φ12.5	2000hrs.
φ16, 18 × 16.5L	2000hrs.
φ16, 18 × 21.5L	3000hrs.

Max. ESR (Ω) at 20°C / -40°C 100kHz, Rated ripple Current (mA rms) at 125°C 100kHz

● : In this case, [] will be put at 12th digit of type numbering system.

● 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

- 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.