nichicon

ALUMINUM ELECTROLYTIC CAPACITORS

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

For SMD | Long Life | Anti-Solvent Feature

NEW

- 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 (2002/95/EC).

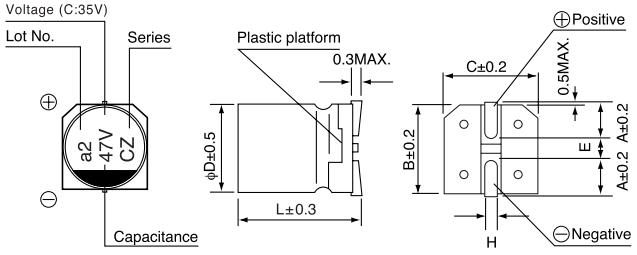
CZ ← Low ESR · Long Life CJ

Specifications

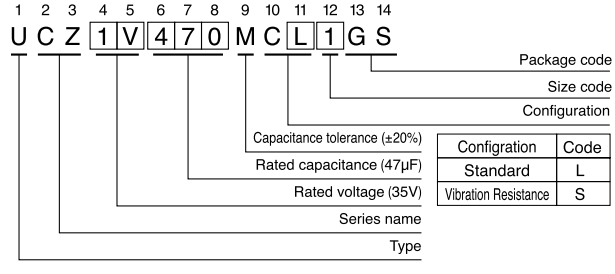
Item	Performance Characteristics
Category Temperature Range	−40 to +125°C
Rated Voltage Range	10 to 35V
Rated Capacitance Range	47 to 470μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3(μA), whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 20°C Rated voltage (V): 10 / 16 / 25 / 35 tan δ (MAX.): 0.30 / 0.23 / 0.18 / 0.16
Stability at Low Temperature	Measurement frequency : 120Hz Rated voltage (V): 10 / 16 / 25 / 35 Impedance ratio ZT / Z20 (MAX.) Z−40°C / Z+20°C: 12 / 8 / 6 / 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 3000 hours (2000hours for φD=6.3) 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)【Standard】※ please contact us for vibration resistance.

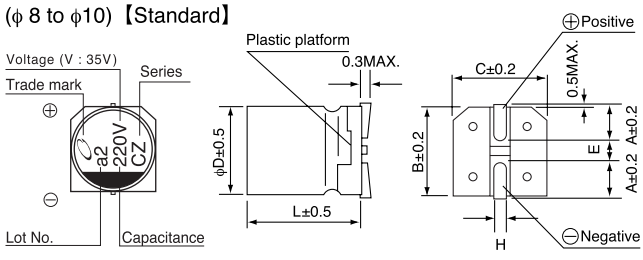


Type numbering system (Example : 35V 47μF)

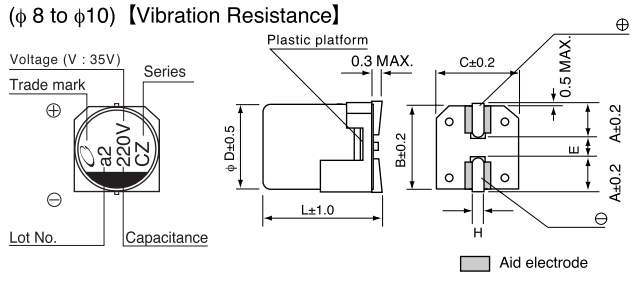


Configration	Code
Standard	L
Vibration Resistance	S

(φ 8 to φ10)【Standard】



(φ 8 to φ10)【Vibration Resistance】



Standard (mm)

φD × L	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

Vibration Resistance (mm)

φD × L	8 × 10	10 × 10
A	2.9	3.2
B	8.3	10.3
C	8.3	10.3
E	3.1	4.5
L	10	10
H	1.1 to 1.5	1.1 to 1.5

Rated Voltage

V	10	16	25	35
Code	A	C	E	V

ALUMINUM ELECTROLYTIC CAPACITORS

CZ series

■ Dimensions

Cap. (μF) \ V	Code	10					16					25					35				
		1A					1C					1E					1V				
47	470																● 6.3 × 7.7	0.45	5	40	197
																	8 × 10	0.20	3	4.5	270
68	680																8 × 10	0.20	3	4.5	270
100	101						● 6.3 × 7.7	0.45	5	40	197	8 × 10	0.20	3	4.5	270	8 × 10	0.20	3	4.5	270
							8 × 10	0.20	3	4.5	270										
220	221	8 × 10	0.20	3	4.5	270	8 × 10	0.20	3	4.5	270	10 × 10	0.15	2	3.5	500	10 × 10	0.15	2	3.5	500
330	331	● 8 × 10	0.20	3	4.5	270	10 × 10	0.15	2	3.5	500	10 × 10	0.15	2	3.5	500	Case size φD × L (mm)	Initial 20°C	Initial -40°C	after endurance test 2000hours -40°C	Rated ripple
		10 × 10	0.15	2	3.5	500												ESR			
470	471	10 × 10	0.15	2	3.5	500	10 × 10	0.15	2	3.5	500										

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

●: In this case, 6 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

Design, Specifications are subject to change without notice.