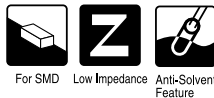


ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

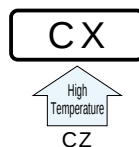
CX

Chip Type, High Reliability
Low temperature ESR specification
series



NEW

- Chip type, high temperature range, for +135°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).

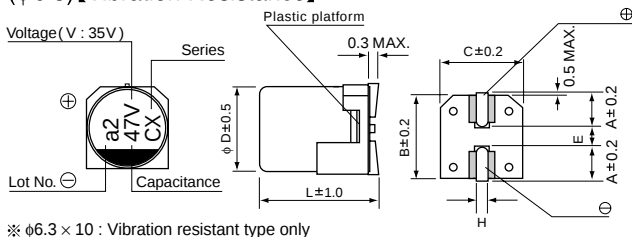


Specifications

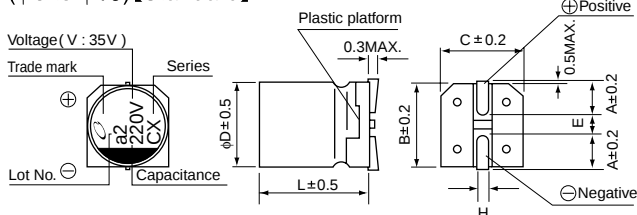
Item	Performance Characteristics							
Category Temperature Range	-40 to +135°C							
Rated Voltage Range	10 to 50V							
Rated Capacitance Range	47 to 3300μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3(μA), whichever is greater.							
Tangent of loss angle (tan δ)	Rated voltage (V)	10	16	25	35	50	Measurement frequency : 120Hz at 20°C	
	tan δ (MAX.)	0.30	0.23	0.18	0.16	0.16		
Stability at Low Temperature	Rated voltage (V)		10	16	25	35	50	Measurement frequency : 120Hz
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C	12	8	6	4	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 2000 hours at 135°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 135°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 shall be kept on the 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.							

Radial Lead Type

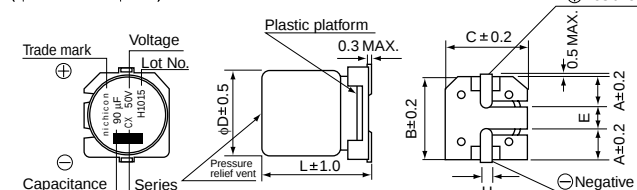
(φ6.3) [Vibration Resistance]



(φ8 to φ10) [Standard]



(φ12.5 to φ18) [Standard]



Standard

φD×L	8×10	10×10	12.5×13.5	16×16.5, 21.5	18×16.5, 21.5
A	2.9	3.2	4.8	5.4	6.4
B	8.3	10.3	13.6	17.1	19.1
C	8.3	10.3	13.6	17.1	19.1
E	3.1	4.5	4	6.3	6.3
L	10	10	13.5	16.5, 21.5	16.5, 21.5
H	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

Vibration Resistance

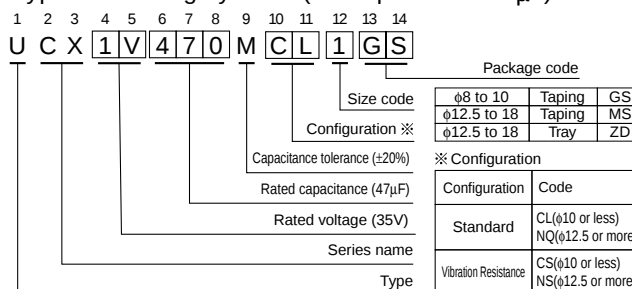
φD×L	6.3×10	8×10	10×10	12.5×13.5	16×16.5, 21.5	18×16.5, 21.5
A	2.4	2.9	3.2	4.8	5.4	6.4
B	6.6	8.3	10.3	13.6	17.1	19.1
C	6.6	8.3	10.3	13.6	17.1	19.1
E	2.2	3.1	4.5	4	6.3	6.3
L	10.8	10	10	13.5	16.5, 21.5	16.5, 21.5
H	0.5 to 0.8	1.1 to 1.5	1.1 to 1.5	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

Rated Voltage

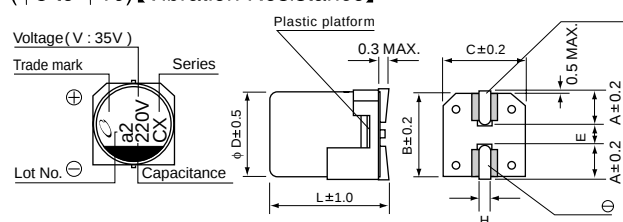
V	10	16	25	35	50
Code	A	C	E	V	H

- Dimension table in next page.

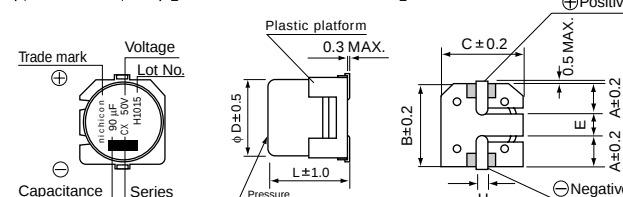
Type numbering system (Example : 35V 47μF)



(φ8 to φ10) [Vibration Resistance]



(φ12.5 to φ18) [Vibration Resistance]



■ Aid electrode

CAT.8100C-1

■ Dimensions

Cap.(μF)	V Code	10					16					25					35					50									
		1A					1C					1E					1V					1H									
47	470																	• 6.3 × 10	0.25	4	15	197	8 × 10	0.25	3.5	15	270				
																		8 × 10	0.20	3	12	270									
68	680																	8 × 10	0.20	3	12	270									
100	101																	• 6.3 × 10	0.25	4	15	197	8 × 10	0.20	3	12	270				
																		8 × 10	0.20	3	12	270									
220	221	8 × 10	0.20	3	12	270												8 × 10	0.20	3	12	270	10 × 10	0.15	2	10	500				
																		10 × 10	0.15	2	10	500									
330	331	• 8 × 10	0.20	3	12	270												10 × 10	0.15	2	10	500	10 × 10	0.15	2	10	500				
		10 × 10	0.15	2	10	500																									
390	391																														
470	471	10 × 10	0.15	2	10	500												10 × 10	0.15	2	10	500									
560	561																														
680	681																														
820	821																														
1000	102																														
1200	122																														
1500	152																														
1800	182																														
2200	222																														
2700	272																														
3300	332																														
																										Case size φD×L (mm)					
																										Initial 20					
																										After -40					
																										1000hours -40					
																										Rated ESR ripple					

MAX. ESR(Ω) at 20 / -40 100kHz, Rated ripple current(mArms) at 135 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

- 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.