

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

CX Chip Type, High Reliability
Low temperature ESR specification
series



- 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).

CX



Specifications

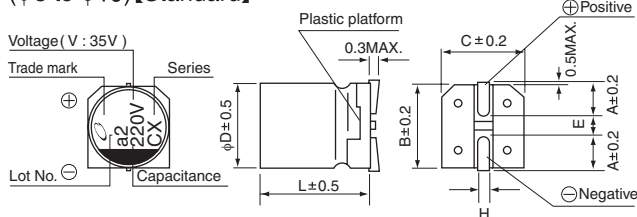
Item	Performance Characteristics							
Category Temperature Range	-40 to +135°C							
Rated Voltage Range	10 to 50V							
Rated Capacitance Range	47 to 3300μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not 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	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

⬜ Aid electrode

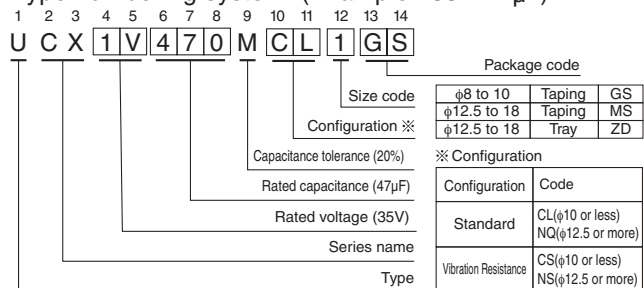
Rated Voltage

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

●Dimension table in next page.

CAT.8100D

Type numbering system (Example : 35V 47μF)





■ Dimensions

Cap.(μF)	V	10		16		25		35		50	
		1A		1C		1E		1V		1H	
47	470							●6.3 X 10, 0.25, 4, 15, 197 8 X 10, 0.20, 3, 12, 270		8 X 10, 0.25, 3.5, 15, 270	
68	680							8 X 10, 0.20, 3, 12, 270			
100	101			●6.3 X 10, 0.25, 4, 15, 197 8 X 10, 0.20, 3, 12, 270		8 X 10, 0.20, 3, 12, 270		●6.3 X 10, 0.25, 4, 15, 197 8 X 10, 0.20, 3, 12, 270		10 X 10, 0.2, 2.5, 12, 500	
220	221	8 X 10, 0.20, 3, 12, 270		8 X 10, 0.20, 3, 12, 270		10 X 10, 0.15, 2, 10, 500		10 X 10, 0.15, 2, 10, 500			
330	331	●8 X 10, 0.20, 3, 12, 270 10 X 10, 0.15, 2, 10, 500		10 X 10, 0.15, 2, 10, 500		10 X 10, 0.15, 2, 10, 500					
390	391									12.5 X 13.5, 0.09, 1.3, 6.5, 750	
470	471	10 X 10, 0.15, 2, 10, 500		10 X 10, 0.15, 2, 10, 500				12.5 X 13.5, 0.07, 1.0, 5.0, 750		16 X 16.5, 0.07, 0.70, 3.5, 1000	
560	561							12.5 X 13.5, 0.07, 1.0, 5.0, 750		16 X 16.5, 0.07, 0.70, 3.5, 1000	
680	681							12.5 X 13.5, 0.07, 1.0, 5.0, 750		18 X 16.5, 0.07, 0.70, 3.5, 1200	
820	821					12.5 X 13.5, 0.07, 1.0, 5.0, 750		16 X 16.5, 0.05, 0.50, 2.5, 1200		18 X 16.5, 0.07, 0.70, 3.5, 1200	
1000	102					12.5 X 13.5, 0.07, 1.0, 5.0, 750		16 X 16.5, 0.05, 0.50, 2.5, 1200		16 X 21.5, 0.05, 0.40, 2.0, 1600	
1200	122					16 X 16.5, 0.05, 0.50, 2.5, 1200		18 X 16.5, 0.05, 0.50, 2.5, 1400		18 X 21.5, 0.04, 0.32, 1.6, 1900	
1500	152					16 X 16.5, 0.05, 0.50, 2.5, 1200		●16 X 21.5, 0.04, 0.32, 1.6, 1900 18 X 16.5, 0.05, 0.50, 2.5, 1400			
1800	182					16 X 16.5, 0.05, 0.50, 2.5, 1200		18 X 21.5, 0.035, 0.28, 1.4, 2200			
2200	222					18 X 16.5, 0.05, 0.50, 2.5, 1400		18 X 21.5, 0.035, 0.28, 1.4, 2200			
2700	272					16 X 21.5, 0.04, 0.32, 1.6, 1900					
3300	332					18 X 21.5, 0.035, 0.28, 1.4, 2200					

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

- 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.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

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<http://moschip.ru/get-element>

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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