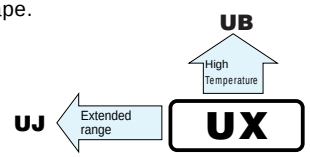
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UX Chip Type, Higher Capacitance Range series

For SMD | Anti-Solvent Feature

- Chip type, higher capacitance in larger case sizes.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.



■Specifications

Item	Performance Characteristics
Category Temperature Range	–55 ~ +105°C
Rated Voltage Range	6.3 ~ 100V
Rated Capacitance Range	4.7 ~ 1000μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV (μA).
tan δ	Measurement frequency : 120Hz, Temperature : 20°C

Rated voltage (V)	6.3	10	16	25	35	50	63	100
tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12	0.10	0.10	0.08

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35	50	63	100
Impedance ratio ZT / Z20 (MAX.)	Z–55°C / Z+20°C	4	4	3	3	3	2	3	4

Endurance

After 2000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.

Capacitance change	Within ±20% of initial value
tan δ	200% or less of intial specified value
Leakage current	Initial specified value or less

Shelf Life

After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.

Resistance to soldering heat

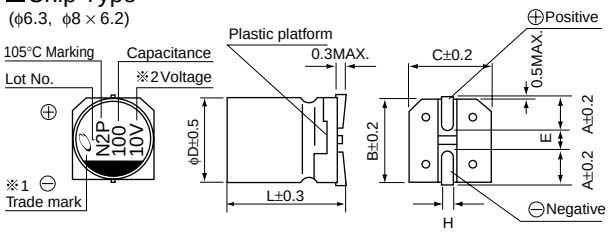
The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.

Capacitance change	Within ±10% of initial value
tan δ	Initial specified value or less
Leakage current	Initial specified value or less

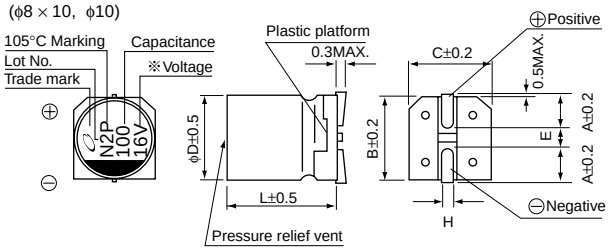
Marking — Black print on the case top.

■Chip Type

(φ6.3, φ8 × 6.2)



(φ8 × 10, φ10)



※1 Size φ8 × 6.2 only
※2 Voltage mark for 6.3V is「6V」.

Type numbering system (Example : 10V 100μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	U	X	1	A	1	0	1	M	B	R	1	G	S

- Package code
- Size code
- Configuration
- Capacitance tolerance (±20%)
- Rated Capacitance (220μF)
- Rated voltage (16V)
- Series name
- Type

D × L	Code
6.3 × 7.7	CR
8 × 6.2	CR
8 × 10	NR
10 × 10	NR

- The lead-free product is also available upon request.
  In this case, L will be put at 11th digit of type numbering system.
  Size φ8 × 6.2, CL will be put at 10th and 11th digit of type numbering system.

(mm)

φD × L	6.3 × 7.7	8 × 6.2	8 × 10	10 × 10
A	2.4	3.3	2.9	3.2
B	6.6	8.3	8.3	10.3
C	6.6	8.3	8.3	10.3
E	2.2	2.3	3.1	4.5
L	7.7	6.2	10	10
H	0.5 ~ 0.8	0.5 ~ 0.8	0.8 ~ 1.1	0.8 ~ 1.1

■Dimensions

φ D × L (mm)

Cap.(μF) \ V	6.3		10		16		25		35		50		63		100	
	Code	0J		1A		1C		1E		1V		1H		1J		2A	
4.7	4R7															8 × 6.2	42
10	100													8 × 6.2	51	8 × 10	75
22	220											○ 8 × 6.2	67 (64)	8 × 10	108	■10 × 10	150 (121)
33	330									○ 8 × 6.2	76 (75)	8 × 10	133	■10 × 10	185 (179)	10 × 10	180
47	470							○ 8 × 6.2	79 (78)	8 × 10	124	■10 × 10	180 (167)	10 × 10	220	10 × 10	230
100	101			8 × 6.2	90	○ 8 × 10	148 (111)	8 × 10	181	■10 × 10	304 (283)	10 × 10	310	10 × 10	320		
220	221	○ 8 × 10	161 (121)	8 × 10	173	■10 × 10	330 (307)	■10 × 10	351 (283)	10 × 10	450						
330	331	8 × 10	288	■10 × 10	318 (296)	■10 × 10	441 (410)	10 × 10	372								
470	471	■10 × 10	340 (316)	■10 × 10	351 (326)	10 × 10	489										
680	681	10 × 10	408	10 × 10	392												
1000	102	10 × 10	495													Case size	Rated ripple

Size φ6.3 × 7.7 is available for capacitors marked. "○" / Size φ8 × 10 is available for capacitors marked. "■"
※ In this case, 6 will be put at 12th digit of type numbering system.

Rated Ripple (mA rms) at 105°C 120Hz

●Frequency coefficient of rated ripple current

Cap.(μF) \ Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz~
~ 47	0.80	1.00	1.15	1.40	1.67
100 ~ 1000	0.85	1.00	1.08	1.20	1.30

- Taping specifications are given in page 22.
- Recommended land size are given in page 23
- Please refer to page 3 for the minimum order quantity.