nichicon

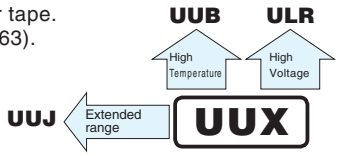
UUX

Chip Type, Wide Temperature Range

For SMD

Anti-Solvent Feature (Through 100V only)

- Chip type, operating over wide temperature range of to -55 to +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.



■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105°C (6.3 to 100V), −40 to +105°C (160 to 400V)
Rated Voltage Range	6.3 to 400V
Rated Capacitance Range	1 to 1000μF
Capacitance Tolerance	±20% at 120Hz, 20°C

Leakage Current

Rated voltage (V)	6.3 to 100	160 to 400
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV (μA).	I = 0.04CV+100 (μA) max.(1 minute's at 20°C)

Tangent of loss angle (tan δ)

Measurement frequency : 120Hz at 20°C

Rated voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	400
tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12	0.10	0.10	0.08	0.20	0.20	0.20	0.25

Stability at Low Temperature

Measurement frequency: 120Hz

Rated voltage (V)		6.3	10	16	25	35	50	63	100	160	200	250	400
Impedance ratio ZT / Z20 (MAX.)	Z−55°C / Z+20°C	4	4	3	3	3	2	3	4	—	—	—	—
	Z−40°C / Z+20°C	—	—	—	—	—	—	—	—	6	6	6	10

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 (160 to 400V : 3000hours) at 105°C.

Capacitance change	Within ±20% of the initial capacitance value
tan δ	200% or less than the intial specified value
Leakage current	Less than or equal to the initial specified value

Shelf Life

After storing the capacitors under no load at 105°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.

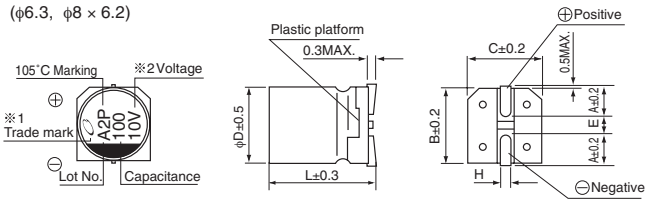
Capacitance change	Within ±10% of the initial capacitance value
tan δ	Less than or equal to the initial specified value
Leakage current	Less than or equal to the initial specified value

Marking

Black print on the case top.

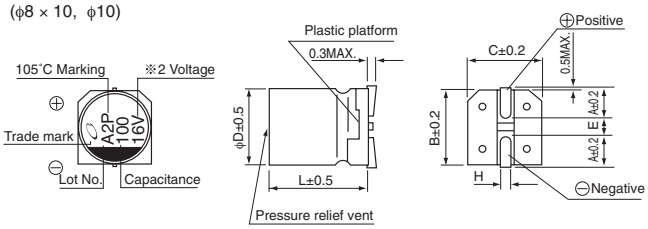
■Chip Type

(φ6.3, φ8 × 6.2)



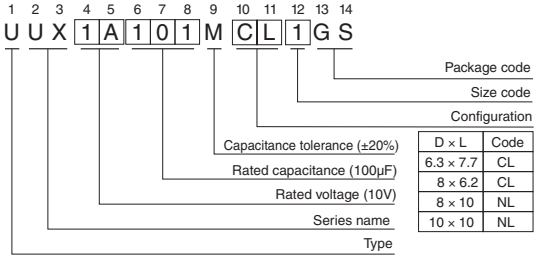
※1 Size φ8×6.2 only
※2 Voltage mark for 6.3V is「6V」.

(φ8 × 10, φ10)



● Dimension table in next page.

Type numbering system (Example : 10V 100μF)



D × L	Code
6.3 × 7.7	CL
8 × 6.2	CL
8 × 10	NL
10 × 10	NL

(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 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

UUX

■Dimensions

Cap. (μF) \ V	Code	6.3		10		16		25		35		50		63		100	
		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											Case size φD x L (mm)	Rated ripple
1000	102	10×10	495														

Cap. (μF) \ V	Code	160		200		250		400	
		2C		2D		2E		2G	
1	010							8×10	25
1.8	1R8							8×10	26
2.2	2R2							8×10	27
3.3	3R3			8×10	31	8×10	31	10×10	38
3.9	3R9			8×10	34	8×10	34	10×10	39
4.7	4R7			8×10	37	8×10	37	10×10	40
6.8	6R8			8×10	44	8×10	44		
10	100	8×10	57	10×10	64	10×10	64		
18	180	10×10	64						

Rated ripple current (mArms) at 105°C 120Hz

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.

● Frequency coefficient of rated ripple current

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

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UUJ(p.176) if high C/V products are reqired.
- Please refer to page 3 for the minimum order quantity.