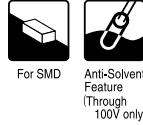


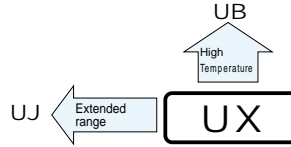
# ALUMINUM ELECTROLYTIC CAPACITORS

**UX series** Chip Type, Higher Capacitance Range



*Upgrade*

- Chip type, higher capacitance in larger case sizes.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2002/95/EC).



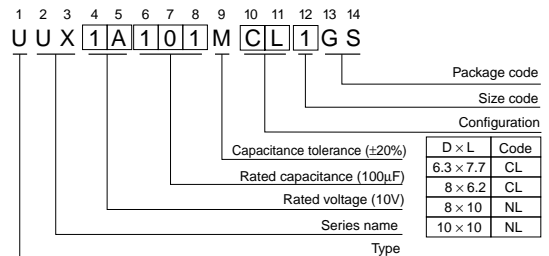
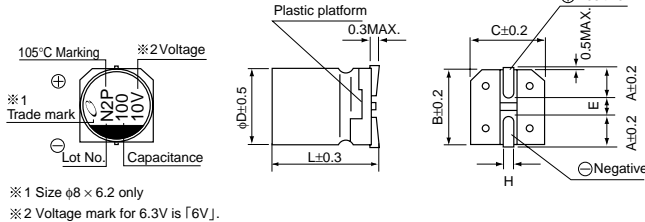
## Specifications

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, leakage current is not more than 0.03CV (μA). I = 0.04CV+100 (μA) max.(1 minute's)											
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 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	Z-55°C / Z+20°C	4	4	3	3	3	2	3	4	—	—	—		
ZT / Z20 (MAX.)	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 initial 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.													

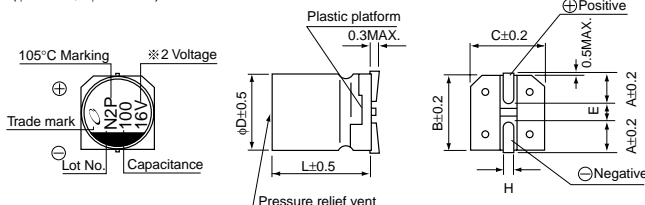
## Chip Type

Type numbering system (Example : 10V 100μF)

(φ6.3, φ8 × 6.2)



(φ8 × 10, φ10 × 10)



	(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

● Dimension table in next page.

### ■ Dimensions

Cap. (μF)	Code	V		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															
1000	102	10×10	495															Case size φD × L (mm)	Rated ripple	

Cap. (μF)	Code	V		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 (mA rms) 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
Less than 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 UJ(p.102) series if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.