

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 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.													

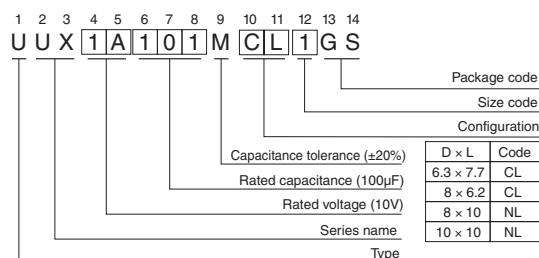
Chip Type

Type numbering system (Example : 10V 100μF)

(φ6.3, φ8 × 6.2)



(φ8 × 10, φ10)



	(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.

UUX

■ Dimensions

Cap. (μ F)	V	6.3	10	16	25	35	50	63	100
	Code	0J	1A	1C	1E	1V	1H	1J	2A
4.7	4R7								8x6.2 42
10	100							8x6.2 51	8x10 75
22	220						○ 8x6.2 67(64)	8x10 108	■ 10x10 150(121)
33	330					○ 8x6.2 76(75)	8x10 133	■ 10x10 185(179)	10x10 180
47	470				○ 8x6.2 79(78)	8x10 124	■ 10x10 180(167)	10x10 220	10x10 230
100	101		8x6.2 90	○ 8x10 148(111)	8x10 181	■ 10x10 304(283)	10x10 310	10x10 320	
220	221	○ 8x10 161(121)	8x10 173	■ 10x10 330(307)	■ 10x10 351(283)	10x10 450			
330	331	8x10 288	■ 10x10 318(296)	■ 10x10 441(410)	10x10 372				
470	471	■ 10x10 340(316)	■ 10x10 351(326)	10x10 489					
680	681	10x10 408	10x10 392						
1000	102	10x10 495							Case size ϕ D x L (mm) Rated ripple

Cap. (μ F)	V	160	200	250	400
	Code	2C	2D	2E	2G
1	010				8x10 25
1.8	1R8				8x10 26
2.2	2R2				8x10 27
3.3	3R3		8x10 31	8x10 31	10x10 38
3.9	3R9		8x10 34	8x10 34	10x10 39
4.7	4R7		8x10 37	8x10 37	10x10 40
6.8	6R8		8x10 44	8x10 44	
10	100	8x10 57	10x10 64	10x10 64	
18	180	10x10 64			

Rated ripple current (mA_{rms}) at 105°C 120HzSize $\phi 6.3 \times 7.7$ is available for capacitors marked. "○" / Size $\phi 8 \times 10$ 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.(μ F)	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 UUX(p.176) if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.