

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.													

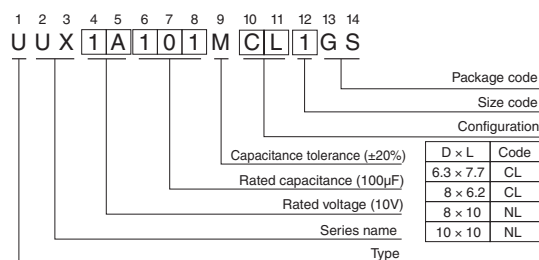
Chip Type

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. (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 φD × L (mm)	Rated ripple

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 UUX(p.176) if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.