

# UUX

Chip Type, Wide Temperature Range



- 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	
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	—	—	—	
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												
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.													
	Capacitance change	Within ±10% of the initial capacitance value												
	tan δ	Less than or equal to the initial specified value												
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												
	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)



φD × L	(mm)			
A	6.3 × 7.7	8 × 6.2	8 × 10	10 × 10
B	2.4	3.3	2.9	3.2
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	6.3		10		16		25		35		50		63		100		
		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 φD × L (mm)	Rated ripple

Cap. (μF)	Code	160		200		250		400	
		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 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.