

UUX

Chip Type, Wide Temperature Range

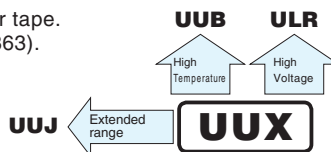


For SMD



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.



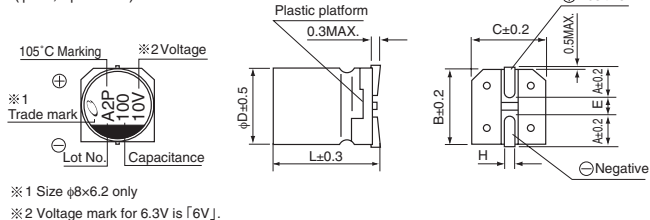
Specifications

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.													

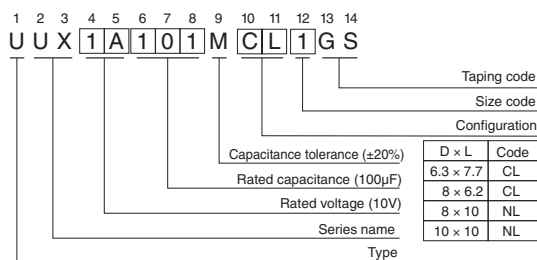
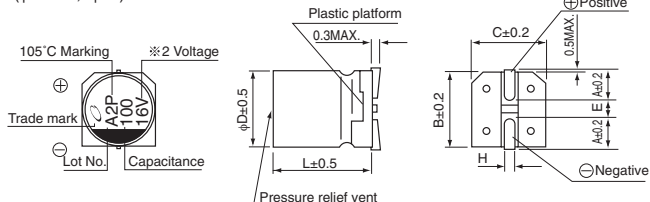
Chip Type

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

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

● Dimension table in next page.

UUX

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D $\times$ L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 1 minute)	Rated Ripple (mArms) (105°C/120Hz)	Part Number
6.3 (0J)	220	8 $\times$ 10	0.22	41.58	161	UUX0J221MNL1GS
	220	6.3 $\times$ 7.7	0.22	41.58	121	UUX0J221MCL6GS
	330	8 $\times$ 10	0.22	62.37	288	UUX0J331MNL1GS
	470	10 $\times$ 10	0.22	88.83	340	UUX0J471MNL1GS
	470	8 $\times$ 10	0.22	88.83	316	UUX0J471MNL6GS
	680	10 $\times$ 10	0.22	128.52	408	UUX0J681MNL1GS
	1000	10 $\times$ 10	0.22	189	495	UUX0J102MNL1GS
10 (1A)	100	8 $\times$ 6.2	0.19	30	90	UUX1A101MCL1GS
	220	8 $\times$ 10	0.19	66	173	UUX1A221MNL1GS
	330	10 $\times$ 10	0.19	99	318	UUX1A331MNL1GS
	330	8 $\times$ 10	0.19	99	296	UUX1A331MNL6GS
	470	10 $\times$ 10	0.19	141	351	UUX1A471MNL1GS
	470	8 $\times$ 10	0.19	141	326	UUX1A471MNL6GS
	680	10 $\times$ 10	0.19	204	392	UUX1A681MNL1GS
16 (1C)	100	8 $\times$ 10	0.16	48	148	UUX1C101MNL1GS
	100	6.3 $\times$ 7.7	0.16	48	111	UUX1C101MCL6GS
	220	10 $\times$ 10	0.16	105.6	330	UUX1C221MNL1GS
	220	8 $\times$ 10	0.16	105.6	307	UUX1C221MNL6GS
	330	10 $\times$ 10	0.16	158.4	441	UUX1C331MNL1GS
	330	8 $\times$ 10	0.16	158.4	410	UUX1C331MNL6GS
	470	10 $\times$ 10	0.16	225.6	489	UUX1C471MNL1GS
25 (1E)	47	8 $\times$ 6.2	0.14	35.25	79	UUX1E470MCL1GS
	47	6.3 $\times$ 7.7	0.14	35.25	78	UUX1E470MCL6GS
	100	8 $\times$ 10	0.14	75	181	UUX1E101MNL1GS
	220	10 $\times$ 10	0.14	165	351	UUX1E221MNL1GS
	220	8 $\times$ 10	0.14	165	283	UUX1E221MNL6GS
	330	10 $\times$ 10	0.14	247.5	372	UUX1E331MNL1GS
35 (1V)	33	8 $\times$ 6.2	0.12	34.65	76	UUX1V330MCL1GS
	33	6.3 $\times$ 7.7	0.12	34.65	75	UUX1V330MCL6GS
	47	8 $\times$ 10	0.12	49.35	124	UUX1V470MNL1GS
	100	10 $\times$ 10	0.12	105	304	UUX1V101MNL1GS
	100	8 $\times$ 10	0.12	105	283	UUX1V101MNL6GS
	220	10 $\times$ 10	0.12	231	450	UUX1V221MNL1GS
50 (1H)	22	8 $\times$ 6.2	0.10	33	67	UUX1H220MCL1GS
	22	6.3 $\times$ 7.7	0.10	33	64	UUX1H220MCL6GS
	33	8 $\times$ 10	0.10	49.5	133	UUX1H330MNL1GS
	47	10 $\times$ 10	0.10	70.5	180	UUX1H470MNL1GS
	47	8 $\times$ 10	0.10	70.5	167	UUX1H470MNL6GS
	100	10 $\times$ 10	0.10	150	310	UUX1H101MNL1GS
63 (1J)	10	8 $\times$ 6.2	0.10	18.9	51	UUX1J100MCL1GS
	22	8 $\times$ 10	0.10	41.58	108	UUX1J220MNL1GS
	33	10 $\times$ 10	0.10	62.37	185	UUX1J330MNL1GS
	33	8 $\times$ 10	0.10	62.37	179	UUX1J330MNL6GS
	47	10 $\times$ 10	0.10	88.83	220	UUX1J470MNL1GS
	100	10 $\times$ 10	0.10	189	320	UUX1J101MNL1GS

UUX

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D $\times$ L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 1 minute)	Rated Ripple (mA _{rms}) (105°C/120Hz)	Part Number
100 (2A)	4.7	8 $\times$ 6.2	0.08	14.1	42	UUX2A4R7MCL1GS
	10	8 $\times$ 10	0.08	30	75	UUX2A100MNL1GS
	22	10 $\times$ 10	0.08	66	150	UUX2A220MNL1GS
	22	8 $\times$ 10	0.08	66	121	UUX2A220MNL6GS
	33	10 $\times$ 10	0.08	99	180	UUX2A330MNL1GS
	47	10 $\times$ 10	0.08	141	230	UUX2A470MNL1GS
160 (2C)	10	8 $\times$ 10	0.20	164	57	UUX2C100MNL1GS
	18	10 $\times$ 10	0.20	215.2	64	UUX2C180MNL1GS
200 (2D)	3.3	8 $\times$ 10	0.20	126.4	31	UUX2D3R3MNL1GS
	3.9	8 $\times$ 10	0.20	131.2	34	UUX2D3R9MNL1GS
	4.7	8 $\times$ 10	0.20	137.6	37	UUX2D4R7MNL1GS
	6.8	8 $\times$ 10	0.20	154.4	44	UUX2D6R8MNL1GS
	10	10 $\times$ 10	0.20	180	64	UUX2D100MNL1GS
250 (2E)	3.3	8 $\times$ 10	0.20	133	31	UUX2E3R3MNL1GS
	3.9	8 $\times$ 10	0.20	139	34	UUX2E3R9MNL1GS
	4.7	8 $\times$ 10	0.20	147	37	UUX2E4R7MNL1GS
	6.8	8 $\times$ 10	0.20	168	44	UUX2E6R8MNL1GS
	10	10 $\times$ 10	0.20	200	64	UUX2E100MNL1GS
400 (2G)	1	8 $\times$ 10	0.25	116	25	UUX2G010MNL1GS
	1.8	8 $\times$ 10	0.25	128.8	26	UUX2G1R8MNL1GS
	2.2	8 $\times$ 10	0.25	135.2	27	UUX2G2R2MNL1GS
	3.3	10 $\times$ 10	0.25	152.8	38	UUX2G3R3MNL1GS
	3.9	10 $\times$ 10	0.25	162.4	39	UUX2G3R9MNL1GS
	4.7	10 $\times$ 10	0.25	175.2	40	UUX2G4R7MNL1GS

- Taping specifications are given in page 20.
- Recommended land size, soldering by reflow are given in page 16, 17.
- Please select UUU(p.184) if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.