

**UUT**

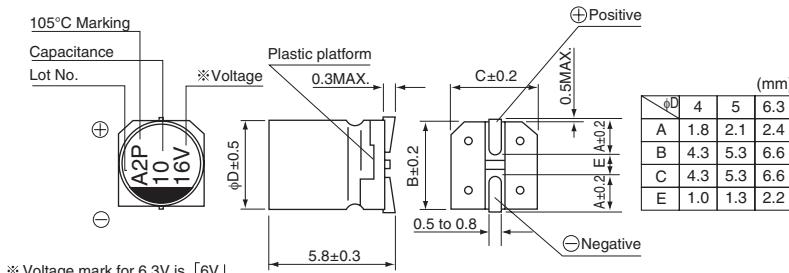
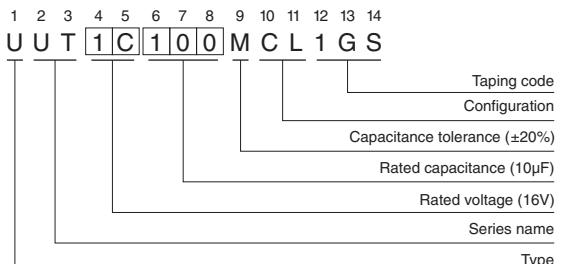
6mmL Chip Type, Wide Temperature Range



- Chip type with load life 2000 hours at +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																															
Rated Voltage Range	4 to 50V																															
Rated Capacitance Range	1 to 100μF																															
Capacitance Tolerance	±20% at 120Hz, 20°C																															
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01 CV or 3 (μA), whichever is greater.																															
Tangent of loss angle (tan δ)	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Rated voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>tan δ (MAX.)</td> <td>0.37</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.13</td> <td>0.12</td> </tr> </tbody> </table>								Rated voltage (V)	4	6.3	10	16	25	35	50	tan δ (MAX.)	0.37	0.28	0.24	0.20	0.16	0.13	0.12								
Rated voltage (V)	4	6.3	10	16	25	35	50																									
tan δ (MAX.)	0.37	0.28	0.24	0.20	0.16	0.13	0.12																									
Stability at Low Temperature	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Rated voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Impedance ratio Z-25°C / Z+20°C</td> <td>6</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT / Z20 (MAX.) Z-40°C / Z+20°C</td> <td>12</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>								Rated voltage (V)	4	6.3	10	16	25	35	50	Impedance ratio Z-25°C / Z+20°C	6	3	3	2	2	2	2	ZT / Z20 (MAX.) Z-40°C / Z+20°C	12	8	5	4	3	3	3
Rated voltage (V)	4	6.3	10	16	25	35	50																									
Impedance ratio Z-25°C / Z+20°C	6	3	3	2	2	2	2																									
ZT / Z20 (MAX.) Z-40°C / Z+20°C	12	8	5	4	3	3	3																									
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 at 105°C.				<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Capacitance change</td> <td>Within ±25% of the initial capacitance value (16V or less)</td> </tr> <tr> <td>tan δ</td> <td>Within ±20% of the initial capacitance value (25V or more)</td> </tr> <tr> <td>Leakage current</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td></td> <td>Less than or equal to the initial specified value</td> </tr> </table>	Capacitance change	Within ±25% of the initial capacitance value (16V or less)	tan δ	Within ±20% of the initial capacitance value (25V or more)	Leakage current	200% or less than the initial specified value		Less than or equal to the initial specified value																			
Capacitance change	Within ±25% of the initial capacitance value (16V or less)																															
tan δ	Within ±20% of the initial capacitance value (25V or more)																															
Leakage current	200% or less than the initial specified value																															
	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.																															
Marking	Black print on the case top.																															

**■ Chip Type****Type numbering system (Example : 16V 10μF)****● Frequency coefficient of rated ripple current**

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

**UUT**

## ■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance ( $\mu$ F)	Case Size $\phi$ D×L(mm)	$\tan \delta$	Leakage Current ( $\mu$ A) (at 20°C after 2 minutes)	Rated Ripple (mArms) (105°C/120Hz)	Part Number
4 (0G)	22	4×5.8	0.37	3	22	UUT0G220MCL1GS
	33	5×5.8	0.37	3	30	UUT0G330MCL1GS
	47	5×5.8	0.37	3	36	UUT0G470MCL1GS
	100	6.3×5.8	0.37	4	60	UUT0G101MCL1GS
6.3 (0J)	22	4×5.8	0.28	3	22	UUT0J220MCL1GS
	33	5×5.8	0.28	3	30	UUT0J330MCL1GS
	47	5×5.8	0.28	3	36	UUT0J470MCL1GS
	100	6.3×5.8	0.28	6.3	60	UUT0J101MCL1GS
10 (1A)	22	5×5.8	0.24	3	27	UUT1A220MCL1GS
	33	5×5.8	0.24	3.3	35	UUT1A330MCL1GS
	47	6.3×5.8	0.24	4.7	46	UUT1A470MCL1GS
	100	6.3×5.8	0.24	10	60	UUT1A101MCL1GS
16 (1C)	10	4×5.8	0.20	3	18	UUT1C100MCL1GS
	22	5×5.8	0.20	3.52	30	UUT1C220MCL1GS
	33	6.3×5.8	0.20	5.28	40	UUT1C330MCL1GS
	47	6.3×5.8	0.20	7.52	50	UUT1C470MCL1GS
25 (1E)	4.7	4×5.8	0.16	3	13	UUT1E4R7MCL1GS
	10	5×5.8	0.16	3	23	UUT1E100MCL1GS
	22	6.3×5.8	0.16	5.5	38	UUT1E220MCL1GS
	33	6.3×5.8	0.16	8.25	48	UUT1E330MCL1GS
35 (1V)	4.7	4×5.8	0.13	3	15	UUT1V4R7MCL1GS
	10	5×5.8	0.13	3.5	25	UUT1V100MCL1GS
	22	6.3×5.8	0.13	7.7	42	UUT1V220MCL1GS
50 (1H)	1	4×5.8	0.12	3	6.2	UUT1H010MCL1GS
	2.2	4×5.8	0.12	3	11	UUT1H2R2MCL1GS
	3.3	4×5.8	0.12	3	14	UUT1H3R3MCL1GS
	4.7	5×5.8	0.12	3	19	UUT1H4R7MCL1GS
	10	6.3×5.8	0.12	5	30	UUT1H100MCL1GS

- Taping specifications are given in page 20.
- Recommended land size, soldering by reflow are given in page 16, 17.
- Please select UUX(p.174), UUJ(p.184) if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.