

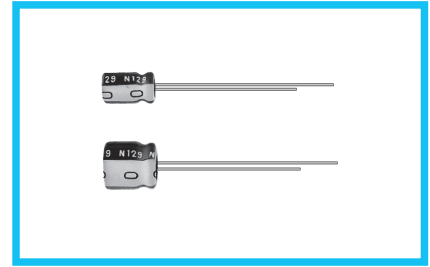
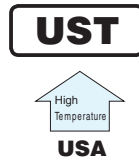
# UST

7mmL, Wide Temperature Range



- Wide temperature range of -55 to +105°C, with 7mm height.
- Compliant to the RoHS directive (2011/65/EU).

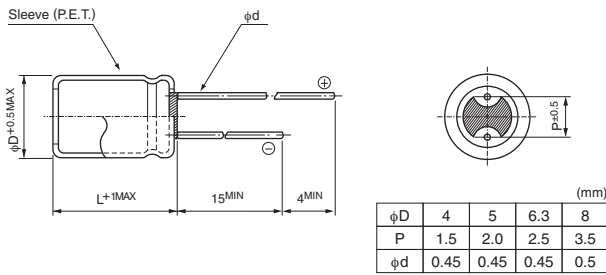
Values marked with an ※ in the dimension table are scheduled to be discontinued and are not recommended for new designs.



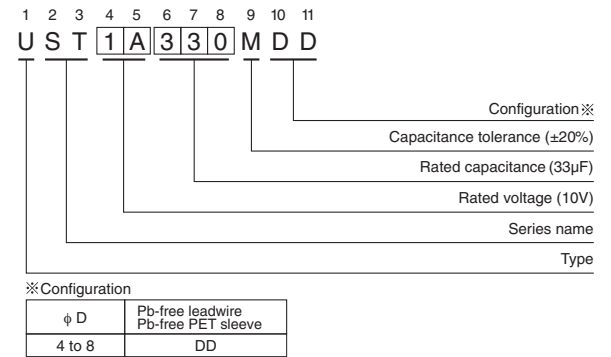
## Specifications

Item	Performance Characteristics																							
Category Temperature Range	-55 to +105°C																							
Rated Voltage Range	6.3 to 50V																							
Rated Capacitance Range	0.1 to 220μF																							
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 0.01CV or 3 (μA), whichever is greater.																							
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C																							
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.24</td> <td>0.21</td> <td>0.18</td> <td>0.15</td> <td>0.13</td> <td>0.12</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	tan δ (MAX.)	0.24	0.21	0.18	0.15	0.13	0.12									
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Stability at Low Temperature	Measurement frequency : 120 Hz																							
	<table border="1"> <tr> <td colspan="2">Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td rowspan="2">Impedance ratio</td> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT / Z20 (MAX.)</td> <td>Z-40°C / Z+20°C</td> <td>6</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)		6.3	10	16	25	35	50	Impedance ratio	Z-25°C / Z+20°C	3	2	2	2	2	2	ZT / Z20 (MAX.)	Z-40°C / Z+20°C	6	5	4	3	3
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Endurance	<p>The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±25% of the initial capacitance value (16V or less) Within ±20% of the initial capacitance value (25V or more)</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</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) Within ±20% of the initial capacitance value (25V or more)	tan δ	200% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value																	
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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.																							
Marking	Printed with white color letter on black sleeve.																							

## Radial Lead Type



## Type numbering system (Example : 10V 33μF)



## Dimensions

Cap. (μF)	Code	V		6.3		10		16		25		35		50	
		0J	1A	1C	1E	1V	1H								
0.1	0R1													※ 4 × 7	1.0
0.22	R22													※ 4 × 7	2.3
0.33	R33													※ 4 × 7	3.5
0.47	R47													※ 4 × 7	5.0
1	010													4 × 7	10
2.2	2R2													4 × 7	19
3.3	3R3													4 × 7	24
4.7	4R7											4 × 7	24	5 × 7	29
10	100					4 × 7	29	5 × 7	33	5 × 7	36	6.3 × 7	44		
22	220	4 × 7	34	5 × 7	38	5 × 7	44	6.3 × 7	51	6.3 × 7	57	8 × 7	65		
33	330	5 × 7	42	5 × 7	47	6.3 × 7	57	6.3 × 7	63	8 × 7	72				
47	470	5 × 7	50	6.3 × 7	59	6.3 × 7	68	8 × 7	78						
100	101	6.3 × 7	77	8 × 7	96	8 × 7	107								
220	221	8 × 7	130	8 × 7	140									Case size φD × L (mm)	Rated ripple

## 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

Rated ripple current (mArms) at 105°C 120Hz  
Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

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