

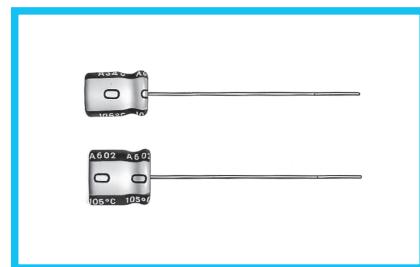
USV

7mmL, Long Life Assurance



- Extended load life of 5000 hours at +105°C, with 7mm height.
- Compliant to the RoHS directive (2011/65/EU).

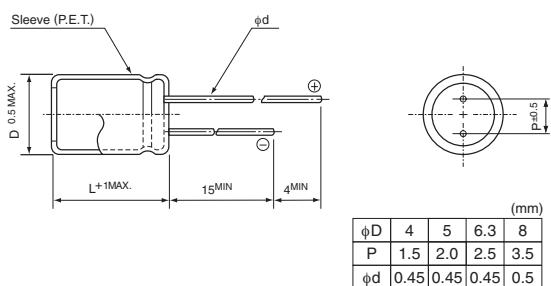
UST → **Long Life** → **USV**



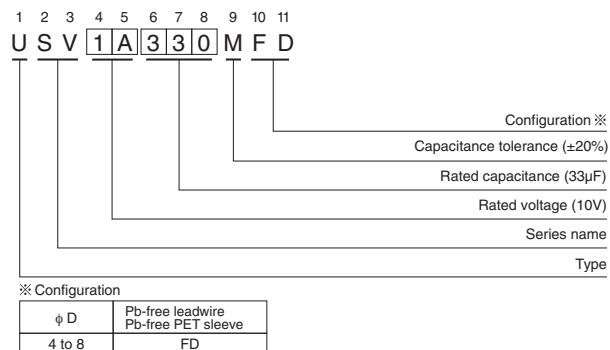
■ Specifications

Item	Performance Characteristics																											
Category Temperature Range	-40 to +105°C																											
Rated Voltage Range	6.3 to 50V																											
Rated Capacitance Range	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, Temperature : 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 : 120Hz <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>Impedance ratio Z-25°C / Z+20°C</td> <td>4</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>8</td> <td>6</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	4	3	2	2	2	2	ZT / Z20 (MAX.) Z-40°C / Z+20°C	8	6	4	3	3	3
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Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours at 105°C. <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>300% 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 ±30% of the initial capacitance value	tan δ	300% 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 silver color letter on dark brown sleeve.																											

■ Radial Lead Type



Type numbering system (Example: 10V 33μF)



■ Dimensions

V	6.3	10	16	25	35	50
Cap.(μF) \ Code	0J	1A	1C	1E	1V	1H
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					

Rated ripple current (mA rms) at 105°C 120Hz

● 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

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.