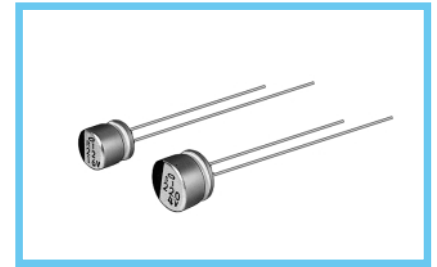
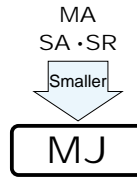


**MJ** 5.2mmL MAX.  
series



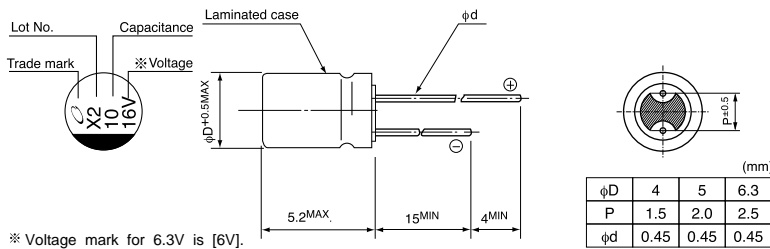
- 5.2mmL MAX. height.
- Adapted to the RoHS directive (2002/95/EC).



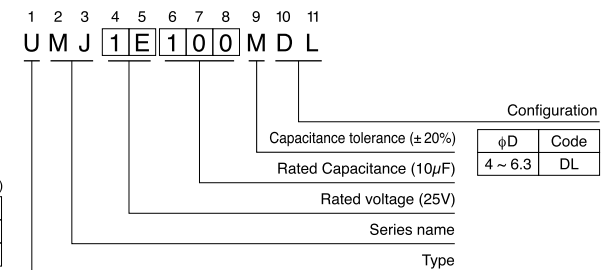
## Specifications

Item	Performance Characteristics																										
Category Temperature Range	-40 ~ +85°C																										
Rated Voltage Range	4 ~ 50V																										
Rated Capacitance Range	0.1 ~ 220μF																										
Capacitance Tolerance	±20% at 120Hz, 20°C																										
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.																										
tan δ	Measurement frequency : 120Hz, Temperature : 20°C																										
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>4</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>0.35</td> <td>0.26</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> </tr> </table>	Rated voltage (V)	4	6.3	10	16	25	35	50	tan δ (MAX.)	0.35	0.26	0.20	0.16	0.14	0.12	0.12										
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tan δ (MAX.)	0.35	0.26	0.20	0.16	0.14	0.12	0.12																				
Stability at Low Temperature	Measurement frequency : 120Hz																										
	<table border="1"> <tr> <td colspan="2">Rated voltage (V)</td> <td>4</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</td> <td>Z-25°C / Z+20°C</td> <td>7</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.)</td> <td>Z-40°C / Z+20°C</td> <td>15</td> <td>8</td> <td>8</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)		4	6.3	10	16	25	35	50	Impedance ratio	Z-25°C / Z+20°C	7	4	3	2	2	2	2	ZT / Z20 (MAX.)	Z-40°C / Z+20°C	15	8	8	4	4	3
Rated voltage (V)		4	6.3	10	16	25	35	50																			
Impedance ratio	Z-25°C / Z+20°C	7	4	3	2	2	2	2																			
ZT / Z20 (MAX.)	Z-40°C / Z+20°C	15	8	8	4	4	3	3																			
Endurance	After 1000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.																										
	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>tan δ</td> <td>200% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±20% of initial value	tan δ	200% or less of initial specified value	Leakage current	Initial specified value or less																				
Capacitance change	Within ±20% of initial value																										
tan δ	200% or less of initial specified value																										
Leakage current	Initial specified value or less																										
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.																										
Marking	Black print on the case top.																										

## Radial Lead Type



## Type numbering system (Example : 25V 10μF)



## Dimensions

Cap. (μF)	Code	4		6.3		10		16		25		35		50	
		0G	0J	1A	1C	1E	1V	1H							
0.1	0R1													4	1.0
0.22	R22													4	2.0
0.33	R33													4	2.8
0.47	R47													4	4.0
1	010													4	8.4
2.2	2R2													4	13
3.3	3R3													4	17
4.7	4R7													4	20
10	100									4	16	4	18	5	20
22	220			4	28	5	33	5	37	5	27	5	29	6.3	33
33	330	4	28	5	37	5	41	6.3	49	6.3	42	6.3	46		
47	470	4	33	5	45	6.3	52	6.3	58						
100	101	5	56	6.3	70										
220	221	6.3	96											Case size φ D (mm)	Rated ripple

Rated Ripple (mArms) at 85°C 120Hz

## Frequency coefficient of rated ripple current

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

Please refer to page 21, 22, 23 about the formed or taped product spec.  
Please refer to page 3 for the minimum order quantity.