



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# UMP

5mmL, Bi-Polarized



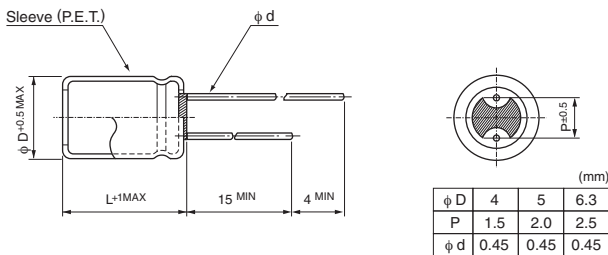
- Bi-polarized series with 5mm height.
- Compliant to the RoHS directive (2011/65/EU).



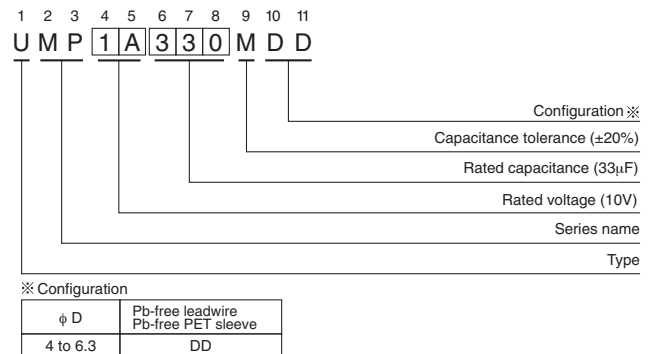
## Specifications

Item	Performance Characteristics																						
Category Temperature Range	-40 to +85°C																						
Rated Voltage Range	6.3 to 50V																						
Rated Capacitance Range	0.1 to 47μF																						
Rated 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 0.05CV or 10 (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>0.20</td> <td>0.17</td> <td>0.17</td> <td>0.15</td> <td>0.15</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	tan δ (MAX.)	0.24	0.20	0.17	0.17	0.15	0.15								
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Stability at Low Temperature	Measurement frequency : 120Hz																						
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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 2000 hours at 85°C with the polarity inverted every 250 hours.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</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 ±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																
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Shelf Life	After storing the capacitors under no load at 85°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	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1											4 × 5	1.0
0.22	R22											4 × 5	2.0
0.33	R33											4 × 5	2.8
0.47	R47											4 × 5	4.0
1	010											4 × 5	8.4
2.2	2R2											4 × 5	13
3.3	3R3							5 × 5	12	5 × 5	16	5 × 5	17
4.7	4R7							5 × 5	16	5 × 5	18	6.3 × 5	20
10	100			4 × 5	17	5 × 5	23	6.3 × 5	27	6.3 × 5	29		
22	220	5 × 5	28	6.3 × 5	33	6.3 × 5	37						
33	330	6.3 × 5	37	6.3 × 5	41	6.3 × 5	49						
47	470	6.3 × 5	45										

Rated ripple current (mA rms) at 85°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.