



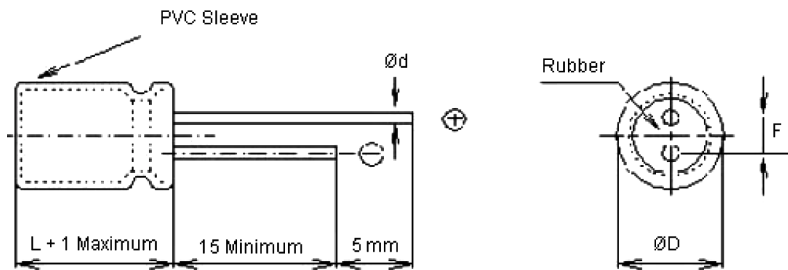
## Features

- Developed short body length to 5mm, for the demand of smaller and thinner electronic equipment
- Most suitable for high-density electronic equipment, such as: automatic office machines, pocket calculators, car stereos and mini-audio sets, VCR, camera, CD-ROM, notebook

## Specifications

Item	Performance																								
Operating temperature range	-40°C to +85°C																								
Rated working voltage range	4V DC to 50V DC																								
Nominal capacitance range	0.1µF to 470µF																								
Capacitance tolerance	±20% (at +20°C, 120 Hz)																								
Leakage current	I = 0.01 CV or 3 (µA) after two minutes																								
Dissipation factor (tan δ) (120 Hz / +20°C)	<table border="1"> <tr> <td>Working 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>Maximum tan δ</td> <td>0.35</td> <td>0.24</td> <td>0.2</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.1</td> </tr> </table>	Working voltage (V)	4	6.3	10	16	25	35	50	Maximum tan δ	0.35	0.24	0.2	0.16	0.14	0.12	0.1								
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Characteristics at high and low temperature (stability at 120 Hz)	<table border="1"> <tr> <td>Working 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>-25°C / +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>-40°C / +20°C</td> <td>15</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Working voltage (V)	4	6.3	10	16	25	35	50	-25°C / +20°C	7	4	3	2	2	2	2	-40°C / +20°C	15	8	6	4	4	3	3
	Working voltage (V)	4	6.3	10	16	25	35	50																	
	-25°C / +20°C	7	4	3	2	2	2	2																	
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High temperature loading	After 1,000 hours application of DC rated working voltage at +85°C, The capacitor shall meet the following limits : Post test requirements at +20°C																								
	<table border="1"> <tr> <td>Leakage current</td> <td>£ the initial specified value</td> </tr> <tr> <td>Capacitance change</td> <td>£ ±20% of initial measured value</td> </tr> <tr> <td>Dissipation factor (tan δ)</td> <td>£ 200% of initial specified value</td> </tr> </table>	Leakage current	£ the initial specified value	Capacitance change	£ ±20% of initial measured value	Dissipation factor (tan δ)	£ 200% of initial specified value																		
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Shelf life	After storage for 500 hours at +85°C with no voltage applied Post test requirements at +20°C same limits as high temperature loading																								
Solvent proof	This capacitor can withstand circuit-board cleaning within 5 minutes dipped in Freon TE, TES at 40°C (ultrasonic also permitted) or in the steam of these cleaners																								

## Diagram of Dimensions



ØD (+0.5 Maximum)	3	4	5	6.3	8
F (±0.5)	1	1.5	2	2.5	3.5
Ød (±0.02)	0.4	0.45	0.45	0.45	0.5

Dimensions : Millimetres

## Case Size Table ØD × L (mm)

W.V. (SV) µF	4 (5)	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)		
0.1	-	-	-	-	-	R	4 × 5 (3 × 5)		
0.22	-	-	-	-	-				
0.33	-	-	-	-	-				
0.47	-	-	-	-	-				
1.0	-	-	-	-	-				
2.2	-	-	-	-	-				
3.3	-	-	-	-	R	4 × 5 (3 × 5)	4 × 5		
4.7	-	-	-	R	4 × 5 (3 × 5)	4 × 5	5 × 5		
10	-	-	R	4 × 5 (3 × 5)	4 × 5	5 × 5	6.3 × 5		
22	R	4 × 5 (3 × 5)	4 × 5	4 × 5	5 × 5	6.3 × 5	8 × 5		
33	4 × 5 (3 × 5)	4 × 5		5 × 5	6.3 × 5	6.3 × 5	8 × 5	-	
47	R	5 × 5	5 × 5	6.3 × 5				8 × 5	-
100			6.3 × 5		8 × 5	-	-		
220			8 × 5			-	-		
330			-		-	-	-		
470	8 × 5	-	-	-	-	-	-		

3 × 5 = UM3R Series

All blank voltage on sleeve marking is the same voltage as "R" point to

## Part Number Table

Description	Part Number
Capacitor, 22µF, 6.3V	MCUMR6V3226M4X5
Capacitor, 33µF, 6.3V	MCUMR6V3336M4X5
Capacitor, 47µF, 6.3V	MCUMR6V3476M4X5
Capacitor, 100µF, 6.3V	MCUMR6V3107M5X5
Capacitor, 220µF, 6.3V	MCUMR6V3227M6.3X5
Capacitor, 330µF, 6.3V	MCUMR6V3337M8X5
Capacitor, 22µF, 10V	MCUMR10V226M4X5
Capacitor, 33µF, 10V	MCUMR10V336M4X5
Capacitor, 47µF, 10V	MCUMR10V476M5X5
Capacitor, 100µF, 10V	MCUMR10V107M6.3X5
Capacitor, 220µF, 10V	MCUMR10V227M8X5
Capacitor, 10µF, 16V	MCUMR16V106M4X5
Capacitor, 22µF, 16V	MCUMR16V226M4X5
Capacitor, 33µF, 16V	MCUMR16V336M5X5
Capacitor, 47µF, 16V	MCUMR16V476M6.3X5
Capacitor, 100µF, 16V	MCUMR16V107M6.3X5
Capacitor, 220µF, 16V	MCUMR16V227M8X5
Capacitor, 4.7µF, 25V	MCUMR25V475M4X5
Capacitor, 10µF, 25V	MCUMR25V106M4X5
Capacitor, 22µF, 25V	MCUMR25V226M5X5

Description	Part Number
Capacitor, 33µF, 25V	MCUMR25V336M6.3X5
Capacitor, 47µF, 25V	MCUMR25V476M6.3X5
Capacitor, 100µF, 25V	MCUMR25V107M8X5
Capacitor, 3.3µF, 35V	MCUMR35V335M4X5
Capacitor, 4.7µF, 35V	MCUMR35V475M4X5
Capacitor, 10µF, 35V	MCUMR35V106M5X5
Capacitor, 22µF, 35V	MCUMR35V226M6.3X5
Capacitor, 33µF, 35V	MCUMR35V336M8X5
Capacitor, 47µF, 35V	MCUMR35V476M8X5
Capacitor, 0.1µF, 50V	MCUMR50V104M4X5
Capacitor, 0.22µF, 50V	MCUMR50V224M4X5
Capacitor, 0.33µF, 50V	MCUMR50V334M4X5
Capacitor, 0.47µF, 50V	MCUMR50V474M4X5
Capacitor, 1µF, 50V	MCUMR50V105M4X5
Capacitor, 2.2µF, 50V	MCUMR50V225M4X5
Capacitor, 3.3µF, 50V	MCUMR50V335M4X5
Capacitor, 4.7µF, 50V	MCUMR50V475M5X5
Capacitor, 10µF, 50V	MCUMR50V106M6.3X5
Capacitor, 22µF, 50V	MCUMR50V226M8X5

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