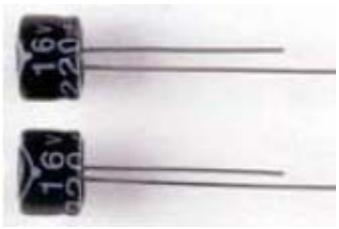
5mm 85°C MCUMR Series



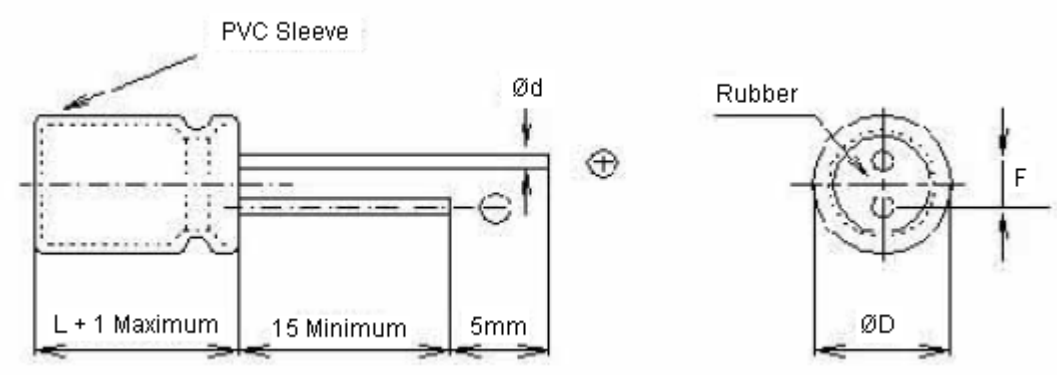
Features:

- Developed short body length to 5 m/m, 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:

<table>
<tr><th>Item</th><th>Performance</th></tr>
<tr><td>Operating temperature range</td><td>-40°C to +85°C</td></tr>
<tr><td>Rated working voltage range</td><td>4 to 50 V dc</td></tr>
<tr><td>Nominal capacitance range</td><td>0.1 to 470 µF</td></tr>
<tr><td>Capacitance tolerance</td><td>±20% (at +20°C,120 Hz)</td></tr>
<tr><td>Leakage current</td><td>I = 0.01CV or 3(µA) after two minutes</td></tr>
<tr><td>Dissipation factor (tan δ) (120 Hz \+20°C)</td><td>
<table>
<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>
</td></tr>
<tr><td>Characteristics at high and low temperature (stability at 120 Hz)</td><td>
<table>
<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>
</td></tr>
<tr><td>High temperature loading</td><td>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>
<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>
</td></tr>
<tr><td>Shelf life</td><td>After storage for 500 hours at +85°C with no voltage applied
Post test requirements at +20°C
same limits as high temperature loading</td></tr>
<tr><td>Solvent proof</td><td>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</td></tr>
</table>

Diagram of Dimensions



Dimensions : Millimetres

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

Case Size Table ØD x 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	8 × 5	-
47	R		5 × 5	6.3 × 5			-
100		5 × 5	6.3 × 5		8 × 5	-	-
220		6.3 × 5	8 × 5	8 × 5	-	-	-
330		8 × 5	-	-	-	-	-
470	8 × 5	-	-	-	-	-	-

3 x 5 = UM3R Series
All blank voltage on sleeve marking is the same voltage as “R” point to

Part Number Table

Description	Part Number
CAPACITOR, 22 µF, 6.3 V	MCUMR6V3226M4X5
CAPACITOR, 33 µF, 6.3 V	MCUMR6V3336M4X5
CAPACITOR, 47 µF, 6.3 V	MCUMR6V3476M4X5
CAPACITOR, 100 µF, 6.3 V	MCUMR6V3107M5X5
CAPACITOR, 220 µF, 6.3 V	MCUMR6V3227M6.3X5
CAPACITOR, 330 µF, 6.3 V	MCUMR6V3337M8X5
CAPACITOR, 22 µF, 10 V	MCUMR10V226M4X5
CAPACITOR, 33 µF, 10 V	MCUMR10V336M4X5
CAPACITOR, 47 µF, 10 V	MCUMR10V476M5X5
CAPACITOR, 100 µF, 10 V	MCUMR10V107M6.3X5
CAPACITOR, 220 µF, 10 V	MCUMR10V227M8X5
CAPACITOR, 10 µF, 16 V	MCUMR16V106M4X5
CAPACITOR, 22 µF, 16 V	MCUMR16V226M4X5
CAPACITOR, 33 µF, 16 V	MCUMR16V336M5X5
CAPACITOR, 47 µF, 16 V	MCUMR16V476M6.3X5
CAPACITOR, 100 µF, 16 V	MCUMR16V107M6.3X5
CAPACITOR, 220 µF, 16 V	MCUMR16V227M8X5
CAPACITOR, 4.7 µF, 25 V	MCUMR25V475M4X5
CAPACITOR, 10 µF, 25 V	MCUMR25V106M4X5
CAPACITOR, 22 µF, 25 V	MCUMR25V226M5X5
CAPACITOR, 33 µF, 25 V	MCUMR25V336M6.3X5
CAPACITOR, 47 µF, 25 V	MCUMR25V476M6.3X5
CAPACITOR, 100 µF, 25 V	MCUMR25V107M8X5
CAPACITOR, 3.3 µF, 35 V	MCUMR35V335M4X5
CAPACITOR, 4.7 µF, 35 V	MCUMR35V475M4X5
CAPACITOR, 10 µF, 35 V	MCUMR35V106M5X5
CAPACITOR, 22 µF, 35 V	MCUMR35V226M6.3X5
CAPACITOR, 33 µF, 35 V	MCUMR35V336M8X5
CAPACITOR, 47 µF, 35 V	MCUMR35V476M8X5
CAPACITOR, 0.1 µF, 50 V	MCUMR50V104M4X5
CAPACITOR, 0.22 µF, 50 V	MCUMR50V224M4X5
CAPACITOR, 0.33 µF, 50 V	MCUMR50V334M4X5
CAPACITOR, 0.47 µF, 50 V	MCUMR50V474M4X5
CAPACITOR, 1 µF, 50 V	MCUMR50V105M4X5
CAPACITOR, 2.2 µF, 50 V	MCUMR50V225M4X5
CAPACITOR, 3.3 µF, 50 V	MCUMR50V335M4X5
CAPACITOR, 4.7 µF, 50 V	MCUMR50V475M5X5
CAPACITOR, 10 µF, 50 V	MCUMR50V106M6.3X5
CAPACITOR, 22 µF, 50 V	MCUMR50V226M8X5