

# Ultra Miniature Radial Capacitors

## MCUMHR Series

**multicomp** PRO

**RoHS  
Compliant**



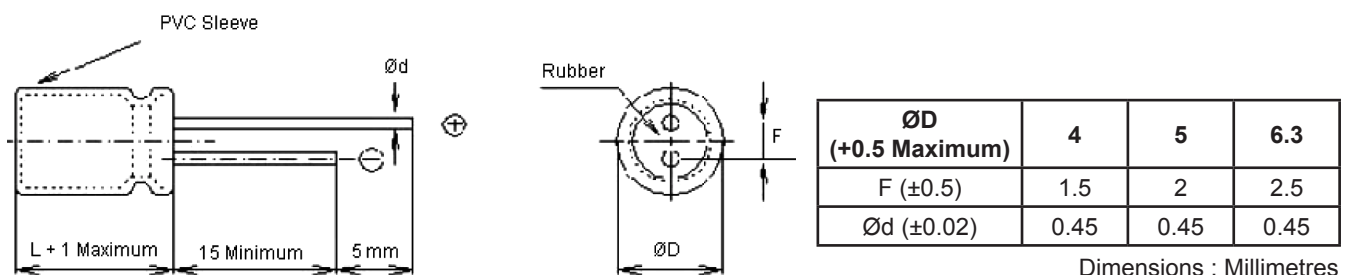
### Features

- Ultra miniature radial electrolytic capacitors, Short body length to 5mm for the demand of smaller and thinner electronic equipment
- Suitable for high-density electronic equipment, such as: Automatic office machines, pocket calculators, car stereos and mini-audio sets, VCR, camera, CD-ROM, notebook etc

### Specifications

Item	Performance															
Operating temperature range	-40°C to +85°C															
Rated working voltage range	6.3V DC to 50V DC															
Nominal capacitance range	1µF to 100µF															
Capacitance tolerance	±20% (at +20°C, 120 Hz)															
Leakage current	I = 0.01 CV or 3 (µA) after two minutes															
Dissipation factor (tan δ) (120Hz / +20°C)	<table border="1"> <tr> <td>Working voltage (V)</td> <td>6.3</td> <td>16</td> <td>35</td> <td>50</td> </tr> <tr> <td>Maximum tan δ</td> <td>0.24</td> <td>0.16</td> <td>0.12</td> <td>0.1</td> </tr> </table>	Working voltage (V)	6.3	16	35	50	Maximum tan δ	0.24	0.16	0.12	0.1					
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Characteristics at Low Temperature (stability at 120Hz)	<table border="1"> <tr> <td>Working voltage (V)</td> <td>6.3</td> <td>16</td> <td>35</td> <td>50</td> </tr> <tr> <td>-25°C / +20°C</td> <td>4</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>-40°C / +20°C</td> <td>8</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Working voltage (V)	6.3	16	35	50	-25°C / +20°C	4	2	2	2	-40°C / +20°C	8	4	3	3
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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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Dissipation factor (tan δ)	≤ 200% of initial specified value															
Shelf Life	After storage for 500 hours at +105°C with no voltage applied Post test requirements at +20°C. Same limits for high temperature loading															
Solvent Proof	This capacitor can withstand circuit-board cleaning of 5 minutes dipped in Freon TE, TES, at 40°C (ultrasonic also permitted) or in the steam of these cleaners															

### Diagram of Dimensions



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### Case Size Table

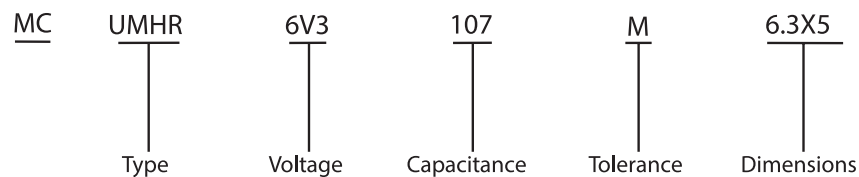
W.V. (SV) μF	6.3 (8)	16 (20)	35 (44)	50 (63)
1	-	-	-	4 × 5
2.2	-	-	-	4 × 5
4.7	-	-	4 × 5	5 × 5
10	-	-	5 × 5	-
22	-	-	6.3 × 5	-
47	-	6.3 × 5	-	-
100	5 × 5	-	-	-

Dimensions : Millimetres

### Specification Table

Capacitance (μF)	Voltage (V DC)	Ripple Current at 120 Hz, 105°C (mA)	Height	Diameter	Lead Diameter	Lead Pitch	Part Number
100	6.3	60	5	5	0.45	2	MCUMHR6V3107M6.3X5
47	16	50		6.3		2.5	MCUMHR16V476M6.3X5
4.7	35	15		4		1.5	MCUMHR35V475M4X5
10		25		5		2	MCUMHR35V106M5X5
22		42		2.5		MCUMHR35V226M6.3X5	
1	50	6.2		4		1.5	MCUMHR50V105M4X5
2.2	11	MCUMHR50V225M4X5					

### Part Number Explanation



Voltage (V DC) : 6V3 = 6.3 V dc, 16V = 16 V dc, 35 = 35 V dc and 50 = 50 V dc

Capacitance code (μF) : First two digits are the base value and last digit which denotes the number of zeros at the end of the value Eg : 107 = 100,000,000μF  
Eg : 476 = 47,000,000μF

Tolerance : M = ±20%

Dimensions : Diameter × Height

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