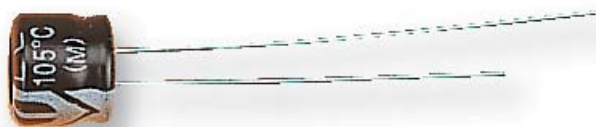


# MCUMHR Series

## Ultra Miniature Radial Capacitors



### 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

Parameter	Performance															
Operating Temperature Range	-40°C to +105°C															
Rated Working Voltage Range	6.3 to 50V dc															
Nominal Capacitance Range	1.0 to 100 $\mu$ F															
Capacitance Tolerance	$\pm$ 20% (at +20°C, 120Hz)															
DC Leakage Current	$I = 0.01CV$ or 3 $\mu$ A after two minutes															
Dissipation Factor ( $\tan\delta$ ) (120Hz/+20°C)	<table border="1"><thead><tr><th>Working voltage (V)</th><th>6.3</th><th>16</th><th>35</th><th>50</th></tr></thead><tbody><tr><td><math>\tan\delta</math> (maximum)</td><td>0.24</td><td>0.16</td><td>0.12</td><td>0.10</td></tr></tbody></table>	Working voltage (V)	6.3	16	35	50	$\tan\delta$ (maximum)	0.24	0.16	0.12	0.10					
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Characteristics at Low Temperature (Stability at 120Hz)	<table border="1"><thead><tr><th>Working voltage (V)</th><th>6.3</th><th>16</th><th>35</th><th>50</th></tr></thead><tbody><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></tbody></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
Working voltage (V)	6.3	16	35	50												
-25°C/+20°C	4	2	2	2												
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High Temperature Loading	<p>After 1000 hours application of DC rated working voltage at +105°C. The capacitor shall meet the following limits: Post test requirements at +20°C.</p> <table border="1"><tbody><tr><td>Leakage current</td><td><math>\leq</math> the initial specified value</td></tr><tr><td>Capacitance change</td><td><math>\leq \pm</math>20% of initial measured value</td></tr><tr><td>Dissipation factor (<math>\tan\delta</math>)</td><td><math>\leq</math> 200% of initial specified value</td></tr></tbody></table>	Leakage current	$\leq$ the initial specified value	Capacitance change	$\leq \pm$ 20% of initial measured value	Dissipation factor ( $\tan\delta$ )	$\leq$ 200% of initial specified value									
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Capacitance change	$\leq \pm$ 20% of initial measured value															
Dissipation factor ( $\tan\delta$ )	$\leq$ 200% of initial specified value															
Shelf Life	<p>After storage for 500 hours at +105°C with no voltage applied. Post test requirements at +20°C. Same limits for high temperature loading.</p>															
Solvent Proof	<p>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.</p>															

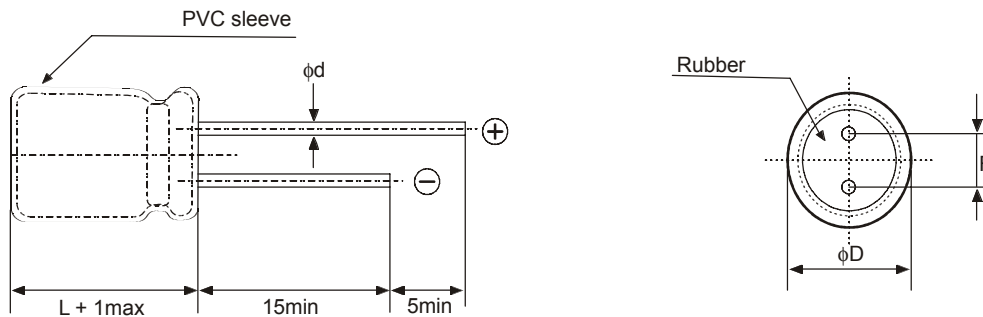


# MCUMHR Series

## Ultra Miniature Radial Capacitors



### Diagram of Dimensions



Dφ (+0.5 Maximum)	4	5	6.3
F (±0.5)	1.5	2.0	2.5
dφ (±0.02)	0.45	0.45	0.45

Dimensions : Millimetres

### Case Size Table

φDiameter x Height

WV (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



# MCUMHR Series

## Ultra Miniature Radial Capacitors

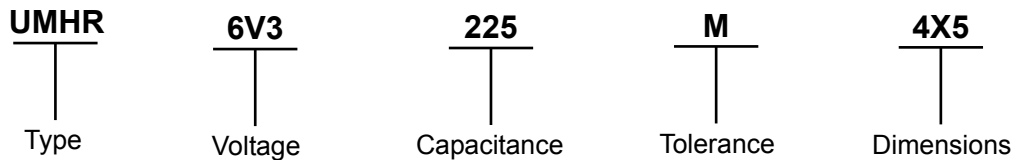


### Specification Table

Capacitance (μF)	Voltage (V dc)	Ripple Current at 120Hz, 105°C (mA)	Height	Diameter	Lead Diameter	Lead Pitch	Part Number
100	6.3	60	5	5	0.45	2	UMHR6V3107M6.3X5
47	16	50		6.3		2.5	UMHR16V476M6.3X5
4.7	35	15		4.0		1.5	UMHR35V475M4X5
10		25		5.0		2.0	UMHR35V106M5X5
22		42		6.3		2.5	UMHR35V226M6.3X5
1.0	50	6.2		4.0		1.5	UMHR50V105M4X5
2.2		11					UMHR50V225M4X5
4.7		19					2.0

Dimensions : Millimetres

### Part Number Explanation:



#### Voltage (V dc)

: 6V3 = 6.3V dc, 16V = 16V dc, 35 = 35V dc and 50 = 50V 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: 225 = 2,200,000μF.

Eg: 226 = 22,000,000μF.

#### Tolerance

: M = ±20%.

#### Dimensions

: Diameter x Height.



# MCUMHR Series

## Ultra Miniature Radial Capacitors



### Notes:

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