



# MMR

## Metallized Polyester Film Capacitors

Radial Leaded, Epoxy Dipped



### FEATURES

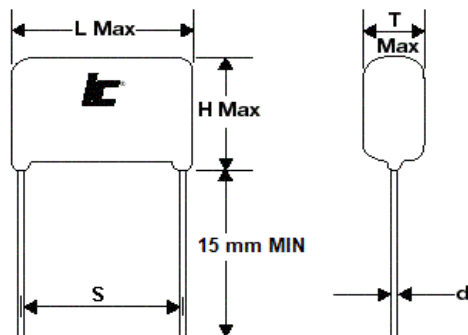
Small Size - High Voltage - General Purpose

### APPLICATIONS

General Purpose - Bypass - Coupling - Blocking

|  |  |                                 |            |            |            |
|--|--|---------------------------------|------------|------------|------------|
| Operating Temperature Range  | <b>-40°C to +105°C</b>   |                                 |            |            |            |
| Capacitance Tolerance  | ±10% at 1 kHz, 25°C<br>+5% optional                            |                                 |            |            |            |
| Peak, AC voltage (50/60 Hz)  | <b>WVDC</b>  | <b>100</b>                      | <b>250</b> | <b>400</b> | <b>630</b> |
|  | <b>VAC</b>   | 63                              | 160        | 200        | 220        |
| For T>+85°C, The voltage must be decreased by 1.25% per °C                 |  |                                 |            |            |            |
| Dissipation Factor (MAX)<br>25°C   | <b>Frequency (kHz)</b>   | <b>Dissipation Factor</b>       |            |            |            |
|  | <b>1</b>   | 1.0%                            |            |            |            |
|  | <b>10</b>  | 1.5%                            |            |            |            |
| Insulation Resistance<br>@25°C (<70% RH) for 1 minute at<br>100VDC applied | <b>Capacitance</b>   | <b>Insulation Resistance</b>    |            |            |            |
|  | <0.33µF  | 9000 MΩ                         |            |            |            |
|  | >0.33µF  | 3000 MΩ×µF                      |            |            |            |
| Load Life  | <b>2000 Hours, +85°C with 125% of rated voltage</b>            |                                 |            |            |            |
|  | <b>Capacitance Change</b>                                      | ≤5% of initially measured value |            |            |            |
|  | <b>Dissipation Factor</b>                                      | ≤0.005 at 1kHz and 25°C         |            |            |            |
| Damp Heat test   | <b>1000 Hours, 93%RH (+/-2%), +40°C and no voltage applied</b> |                                 |            |            |            |
|  | <b>Capacitance Change</b>                                      | ≤5% of initially measured value |            |            |            |
|  | <b>Dissipation Factor</b>                                      | ≤0.005 at 1kHz and 25°C         |            |            |            |
|  | <b>Insulation Resistance</b>                                   | ≥50% of maximum specified value |            |            |            |
| Self Inductance  | <1 nano-Henry per mm of body length and lead length            |                                 |            |            |            |
| Capacitance Drift Factor   | <1.0% after 2 years at 40°C                                    |                                 |            |            |            |
| Capacitance Temperature Coefficient  | +400 ppm/°C, ±200ppm/°C  |                                 |            |            |            |
| Dielectric Strength  | <b>Terminal to Terminal</b>                                    |                                 |            |            |            |
|  | 160% of VDC applied for 2 Seconds and 25°C                     |                                 |            |            |            |
| Dielectric   | Polyester  |                                 |            |            |            |
| Construction   | Metallized film  |                                 |            |            |            |
| Coating  | Flame Retardant epoxy resin (UL94V0)                           |                                 |            |            |            |
| Leads  | Lead free tinned copper leads                                  |                                 |            |            |            |

### Special Order Options



|         |      |     |      |      |      |
|---------|------|-----|------|------|------|
| L MAX   | 10.5 | 12  | 18.5 | 26   | 31   |
| S+1.0   | 7.5  | 10  | 15   | 22.5 | 27.5 |
| G MAX   | 1.5  | 1.5 | 1.5  | 1.5  | 1.5  |
| d +0.05 | 0.6  | 0.6 | 0.8  | 0.8  | 0.8  |

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Small Size Epoxy Dipped  
Metallized Polyester Radial  
Lead

| WVDC | Capacitance (μF) | IC PART NUMBER | dv/dt (v/μ sec.) | Dims LxHxT (mm) | S (MM) | d (MM) |
|------|------------------|----------------|------------------|-----------------|--------|--------|
| 100  | 0.15             | 154MMR100K     | 35               | 10.3x7.5x4.5    | 7.5    | 0.6    |
| 100  | 0.22             | 224MMR100K     | 35               | 10.3x8x5        | 7.5    | 0.6    |
| 100  | 0.33             | 334MMR100K     | 35               | 10.3x10.7x6     | 7.5    | 0.6    |
| 100  | 0.68             | 684MMR100K     | 0                | 12x13x6         | 10     | 0.6    |
| 100  | 1                | 105MMR100K     | 30               | 12x14x6.7       | 10     | 0.6    |
| 100  | 1.5              | 155MMR100K     | 20               | 18.5x13.4x6     | 15     | 0.8    |
| 100  | 2.2              | 225MMR100K     | 20               | 18.5x15x7       | 15     | 0.8    |
| 100  | 3.3              | 335MMR100K     | 20               | 18.5x16.5x8.5   | 15     | 0.8    |
| 100  | 4.7              | 475MMR100K     | 10               | 26x17x7.5       | 22.5   | 0.8    |
| 100  | 5.6              | 565MMR100K     | 10               | 26x18.5x8.3     | 22.5   | 0.8    |
| 100  | 6.8              | 685MMR100K     | 10               | 26x18.5x9       | 22.5   | 0.8    |
| 100  | 8.2              | 825MMR100K     | 10               | 26x21x10        | 22.5   | 0.8    |
| 100  | 10               | 106MMR100K     | 10               | 26x21x11.5      | 22.5   | 0.8    |
| 250  | 0.01             | 103MMR250K     | 80               | 10.3x7.5x4.3    | 7.5    | 0.6    |
| 250  | 0.015            | 153MMR250K     | 80               | 10.3x7.5x4.4    | 7.5    | 0.6    |
| 250  | 0.022            | 223MMR250K     | 80               | 10.3x7.5x4.4    | 7.5    | 0.6    |
| 250  | 0.033            | 333MMR250K     | 80               | 10.3x7.5x4.5    | 7.5    | 0.6    |
| 250  | 0.047            | 473MMR250K     | 80               | 10.3x7.5x4.5    | 7.5    | 0.6    |
| 250  | 0.068            | 683MMR250K     | 80               | 10.3x7.5x4.5    | 7.5    | 0.6    |
| 250  | 0.1              | 104MMR250K     | 80               | 10.3x8.4x5.8    | 7.5    | 0.6    |
| 250  | 0.15             | 154MMR250K     | 80               | 10.3x10.8x6     | 7.5    | 0.6    |
| 250  | 0.22             | 224MMR250K     | 110              | 12x10.5x5.5     | 10     | 0.6    |
| 250  | 0.33             | 334MMR250K     | 110              | 12x12x6.5       | 10     | 0.6    |
| 250  | 0.47             | 474MMR250K     | 45               | 18.5x12.5x5.3   | 15     | 0.8    |
| 250  | 0.68             | 684MMR250K     | 45               | 18.5x13.5x6     | 15     | 0.8    |
| 250  | 1                | 105MMR250K     | 45               | 18.5x15x7.4     | 15     | 0.8    |
| 250  | 1.5              | 155MMR250K     | 45               | 18.5x16.8x9     | 15     | 0.8    |
| 250  | 2.2              | 225MMR250K     | 20               | 26x16.3x8.5     | 22.5   | 0.8    |
| 250  | 3.3              | 335MMR250K     | 20               | 26x18x10.3      | 22.5   | 0.8    |
| 250  | 4.7              | 475MMR250K     | 20               | 26x21.5x12      | 22.5   | 0.8    |
| 250  | 5.6              | 565MMR250K     | 15               | 31x22x11.8      | 27.5   | 0.8    |
| 250  | 6.8              | 685MMR250K     | 15               | 31x22.4x13      | 27.5   | 0.8    |

| WVDC | Capacitance (μF) | IC PART NUMBER | dv/dt (v/μ sec.) | Dims LxHxT (mm) | S (MM) | d (MM) |
|------|------------------|----------------|------------------|-----------------|--------|--------|
| 250  | 8.2              | 825MMR250K     | 15               | 31x24.5x14.3    | 27.5   | 0.8    |
| 250  | 10               | 106MMR250K     | 15               | 31x25.8x15.9    | 27.5   | 0.8    |
| 400  | 0.01             | 103MMR400K     | 190              | 10.3x7.4x4.3    | 7.5    | 0.6    |
| 400  | 0.015            | 153MMR400K     | 190              | 10.3x7.5x4.4    | 7.5    | 0.6    |
| 400  | 0.022            | 223MMR400K     | 190              | 10.3x7.9x4.8    | 7.5    | 0.6    |
| 400  | 0.033            | 333MMR400K     | 190              | 10.3x9x6        | 7.5    | 0.6    |
| 400  | 0.047            | 473MMR400K     | 160              | 12x8.3x5        | 10     | 0.6    |
| 400  | 0.068            | 683MMR400K     | 160              | 12x10.5x5.4     | 10     | 0.6    |
| 400  | 0.1              | 104MMR400K     | 160              | 12x12x6.3       | 10     | 0.6    |
| 400  | 0.15             | 154MMR400K     | 65               | 18.5x12.4x5     | 15     | 0.8    |
| 400  | 0.22             | 224MMR400K     | 65               | 18.5x13x5.9     | 15     | 0.8    |
| 400  | 0.33             | 334MMR400K     | 65               | 18.5x14.9x7     | 15     | 0.8    |
| 400  | 0.47             | 474MMR400K     | 65               | 18.5x17x7.8     | 15     | 0.8    |
| 400  | 0.68             | 684MMR400K     | 30               | 26x16.5x7       | 22.5   | 0.8    |
| 400  | 1                | 105MMR400K     | 30               | 26x18x8.5       | 22.5   | 0.8    |
| 400  | 1.5              | 155MMR400K     | 25               | 31x19x9.5       | 27.5   | 0.8    |
| 400  | 2.2              | 225MMR400K     | 25               | 31x22x11        | 27.5   | 0.8    |
| 630  | 0.01             | 103MMR630K     | 200              | 12x7.5x4.5      | 10     | 0.6    |
| 630  | 0.015            | 153MMR630K     | 200              | 12x8.2x5        | 10     | 0.6    |
| 630  | 0.022            | 223MMR630K     | 200              | 12x10.5x5.3     | 10     | 0.6    |
| 630  | 0.033            | 333MMR630K     | 200              | 12x11.9x6       | 10     | 0.6    |
| 630  | 0.047            | 473MMR630K     | 200              | 12x13.5x6.5     | 10     | 0.6    |
| 630  | 0.068            | 683MMR630K     | 90               | 18.5x11x5.8     | 15     | 0.8    |
| 630  | 0.1              | 104MMR630K     | 90               | 18.5x14x6.3     | 15     | 0.8    |
| 630  | 0.15             | 154MMR630K     | 90               | 18.5x15.4x7.5   | 15     | 0.8    |
| 630  | 0.22             | 224MMR630K     | 90               | 18.5x16.5x9     | 15     | 0.8    |
| 630  | 0.33             | 334MMR630K     | 35               | 26x17x7.8       | 22.5   | 0.8    |
| 630  | 0.47             | 474MMR630K     | 35               | 26x18.5x9.3     | 22.5   | 0.8    |
| 630  | 0.68             | 684MMR630K     | 35               | 26x21x11.5      | 22.5   | 0.8    |
| 630  | 1                | 105MMR630K     | 30               | 31x21.9x12.5    | 27.5   | 0.8    |
| 630  | 1.5              | 155MMR630K     | 30               | 31x24.7x15.3    | 27.5   | 0.8    |
| 630  | 2.2              | 225MMR630K     | 30               | 31x29x19.5      | 27.5   | 0.8    |

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