



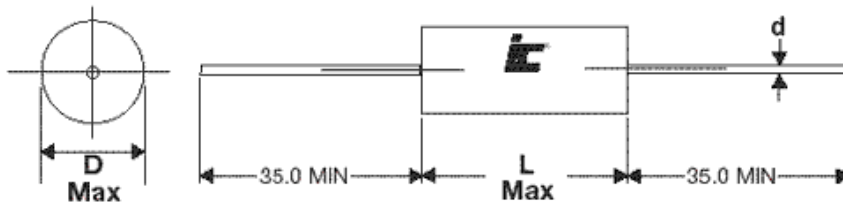
#### FEATURES

Low ESR - High AC/Ripple Current - Stable with frequency and temperature

#### APPLICATIONS

Switching Power Supplies - General Purpose - AC Applications ( Not across the Line)

|   |   |                                 |            |            |            |
|---|---|---------------------------------|------------|------------|------------|
| <b>Operating Temperature Range</b>  | <b>-55°C to +105°C</b>  |                                 |            |            |            |
| <b>Capacitance Tolerance</b>  | ±10% at 1 kHz, 25°C<br>±5% optional   |                                 |            |            |            |
| <b>AC Voltage</b>   | <b>WVDC</b>   | <b>160</b>                      | <b>250</b> | <b>400</b> | <b>630</b> |
|   | <b>VAC</b>  | 90                              | 200        | 220        | 250        |
| For T>+85°C , The voltage must be decreased by 1.5% per °C                            |   |                                 |            |            |            |
| <b>Dissipation Factor (MAX)<br/>1 kHz, 25°C</b>                                       | <b>0.001</b>  |                                 |            |            |            |
| <b>Insulation Resistance<br/>@25°C (&lt;70% RH)for 1 minute at<br/>100VDC applied</b> | <b>Capacitance</b>  | <b>Insulation Resistance</b>    |            |            |            |
|   | ≤0.33μF   | 30000 MΩ                        |            |            |            |
|   | >0.33μF   | 10000 MΩxμF                     |            |            |            |
| <b>Load Life</b>  | <b>2000 Hours, +85C with 125% of rated voltage</b>                              |                                 |            |            |            |
|   | <b>Capacitance Change</b>   | ≤3% of initially measured value |            |            |            |
|   | <b>Dissipation Factor</b>   | ≤0.001 at 1kHz and 25°C         |            |            |            |
|   | <b>Insulation Resistance</b>  | ≥50% of maximum specified value |            |            |            |
| <b>Damp Heat test</b>   | <b>56 days at40°C with 90 to 95%RH, +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 |            |            |            |
| <b>Self Inductance</b>  | <1 nano-Henry per mm of body length and lead length                             |                                 |            |            |            |
| <b>Capacitance Drift Factor</b>   | <0.5% after 2 years at 40°C   |                                 |            |            |            |
| <b>Capacitance Temperature Coefficient</b>  | -200 ppm/°C, ±100ppm/°C   |                                 |            |            |            |
| <b>Dielectric Strength</b>  | <b>Terminal to Terminal</b>   |                                 |            |            |            |
|   | 200% of rated VDC or VAC applied for 10 Seconds and 25°C                        |                                 |            |            |            |
| <b>Dielectric</b>   | Polypropylene   |                                 |            |            |            |
| <b>Construction</b>   | Metallized film   |                                 |            |            |            |
| <b>Coating</b>  | Flame Retardant Polyester tape wrap (UL 510) with epoxy resin end fills(UL94V0) |                                 |            |            |            |
| <b>Leads</b>  | Lead free tinned copper leads   |                                 |            |            |            |



| Lead Diameter |     |
|---------------|-----|
| D             | d   |
| ≤9            | 0.6 |
| >9            | 0.8 |

# MPW

## Metallized Polypropylene Axial Lead

| Capacitance (μF) | WVDC | IC PART NUMBER | dv/dt (v/μ sec.) | Dims DxL (mm) | d (MM) |
|------------------|------|----------------|------------------|---------------|--------|
| 0.001            | 630  | 102MPW630K     | 22               | 6.5x14.5      | 0.6    |
| 0.0015           | 400  | 152MPW400K     | 15               | 6.5x14.5      | 0.6    |
| 0.0015           | 630  | 152MPW630K     | 22               | 6.5x14.5      | 0.6    |
| 0.0022           | 400  | 222MPW400K     | 15               | 5.5x11.5      | 0.6    |
| 0.0022           | 630  | 222MPW630K     | 22               | 6.5x14.5      | 0.6    |
| 0.0033           | 400  | 332MPW400K     | 15               | 6.5x14.5      | 0.6    |
| 0.0033           | 630  | 332MPW630K     | 22               | 6.5x14.5      | 0.6    |
| 0.0047           | 400  | 472MPW400K     | 15               | 6.5x14.5      | 0.6    |
| 0.0047           | 630  | 472MPW630K     | 22               | 6x14.5        | 0.6    |
| 0.0068           | 400  | 682MPW400K     | 15               | 5.5x11.5      | 0.6    |
| 0.0068           | 630  | 682MPW630K     | 22               | 6x14.5        | 0.6    |
| 0.0082           | 400  | 822MPW400K     | 15               | 6.5x14.5      | 0.6    |
| 0.0082           | 630  | 822MPW630K     | 22               | 6x14.5        | 0.6    |
| 0.01             | 400  | 103MPW400K     | 15               | 6x14.5        | 0.6    |
| 0.01             | 630  | 103MPW630K     | 22               | 6.5x14.5      | 0.6    |
| 0.015            | 250  | 153MPW250K     | 12               | 5.5x14.5      | 0.6    |
| 0.015            | 400  | 153MPW400K     | 15               | 6.5x14.5      | 0.6    |
| 0.015            | 630  | 153MPW630K     | 22               | 7.5x14.5      | 0.6    |
| 0.022            | 160  | 223MPW160K     | 22               | 5.5x11.5      | 0.6    |
| 0.022            | 250  | 223MPW250K     | 12               | 7x14          | 0.6    |
| 0.022            | 400  | 223MPW400K     | 15               | 7x14.5        | 0.6    |
| 0.022            | 630  | 223MPW630K     | 22               | 8.5x14.5      | 0.8    |
| 0.033            | 160  | 333MPW160K     | 22               | 5.5x11.5      | 0.6    |
| 0.033            | 250  | 333MPW250K     | 12               | 6.5x14.5      | 0.6    |
| 0.033            | 400  | 333MPW400K     | 15               | 7.5x14.5      | 0.6    |
| 0.033            | 630  | 333MPW630K     | 16               | 8.5x20.5      | 0.8    |
| 0.047            | 160  | 473MPW160K     | 22               | 5.5x11.5      | 0.6    |
| 0.047            | 250  | 473MPW250K     | 12               | 6.5x14.5      | 0.6    |
| 0.047            | 400  | 473MPW400K     | 15               | 8.5x14.5      | 0.8    |
| 0.047            | 630  | 473MPW630K     | 16               | 9x20.5        | 0.8    |
| 0.068            | 160  | 683MPW160K     | 22               | 6.5x14.5      | 0.6    |
| 0.068            | 250  | 683MPW250K     | 12               | 7.5x14.5      | 0.6    |
| 0.068            | 400  | 683MPW400K     | 12               | 8.5x20.5      | 0.8    |
| 0.068            | 630  | 683MPW630K     | 12               | 9x29          | 0.8    |
| 0.1              | 160  | 104MPW160K     | 22               | 6.5x14.5      | 0.6    |
| 0.1              | 250  | 104MPW250K     | 12               | 8.5x14.5      | 0.8    |
| 0.1              | 400  | 104MPW400K     | 12               | 8.5x20.5      | 0.8    |
| 0.1              | 630  | 104MPW630K     | 12               | 10.5x29       | 0.8    |

| Capacitance (μF) | WVDC | IC PART NUMBER | dv/dt (v/μ sec.) | Dims DxL (mm) | d (MM) |
|------------------|------|----------------|------------------|---------------|--------|
| 0.15             | 160  | 154MPW160K     | 22               | 7.5x14.5      | 0.6    |
| 0.15             | 250  | 154MPW250K     | 8                | 8x20.5        | 0.6    |
| 0.15             | 400  | 154MPW400K     | 7                | 9.5x29        | 0.8    |
| 0.15             | 630  | 154MPW630K     | 12               | 12x29         | 0.8    |
| 0.22             | 160  | 224MPW160K     | 22               | 8x14.5        | 0.6    |
| 0.22             | 250  | 224MPW250K     | 8                | 9.5x20.5      | 0.8    |
| 0.22             | 400  | 224MPW400K     | 7                | 10.5x29       | 0.8    |
| 0.22             | 630  | 224MPW630K     | 7                | 12.5x34       | 0.8    |
| 0.33             | 160  | 334MPW160K     | 18               | 8.5x20.5      | 0.8    |
| 0.33             | 250  | 334MPW250K     | 5                | 10x29         | 0.8    |
| 0.33             | 400  | 334MPW400K     | 7                | 12.5x29       | 0.8    |
| 0.33             | 630  | 334MPW630K     | 7                | 15.5x34       | 0.8    |
| 0.47             | 160  | 474MPW160K     | 18               | 9.5x20.5      | 0.8    |
| 0.47             | 250  | 474MPW250K     | 5                | 11x29         | 0.8    |
| 0.47             | 400  | 474MPW400K     | 7                | 14x29         | 0.8    |
| 0.47             | 630  | 474MPW630K     | 7                | 18x34         | 0.8    |
| 0.68             | 160  | 684MPW160K     | 11               | 10x29         | 0.8    |
| 0.68             | 250  | 684MPW250K     | 5                | 12.5x29       | 0.8    |
| 0.68             | 400  | 684MPW400K     | 5                | 15x34         | 0.8    |
| 0.68             | 630  | 684MPW630K     | 7                | 22x34         | 1      |
| 1                | 160  | 105MPW160K     | 11               | 11x29         | 0.8    |
| 1                | 250  | 105MPW250K     | 3                | 13x34         | 0.8    |
| 1                | 400  | 105MPW400K     | 5                | 17.5x34       | 0.8    |
| 1.5              | 160  | 155MPW160K     | 11               | 13x29         | 0.8    |
| 1.5              | 250  | 155MPW250K     | 8                | 16x34         | 0.8    |
| 1.5              | 400  | 155MPW400K     | 5                | 20.5x34       | 1      |
| 2.2              | 160  | 225MPW160K     | 8                | 13.5x34       | 0.8    |
| 2.2              | 250  | 225MPW250K     | 3                | 19x34         | 0.8    |
| 2.2              | 400  | 225MPW400K     | 3                | 24x46         | 1      |
| 3.3              | 160  | 335MPW160K     | 8                | 16x34         | 0.8    |
| 3.3              | 250  | 335MPW250K     | 2                | 17x47         | 0.8    |
| 3.3              | 400  | 335MPW400K     | 3                | 26x44         | 1      |
| 4.7              | 160  | 475MPW160K     | 8                | 18x34         | 0.8    |
| 4.7              | 250  | 475MPW250K     | 2                | 22.5x47       | 1      |
| 4.7              | 400  | 475MPW400K     | 3                | 28.5x47       | 1      |
| 6.8              | 160  | 685MPW160K     | 8                | 18.5x46.5     | 0.8    |
| 10               | 160  | 106MPW160K     | 8                | 22.5x46.5     | 1      |