



## Metallized Polyester Film Capacitors

For High Voltage Applications

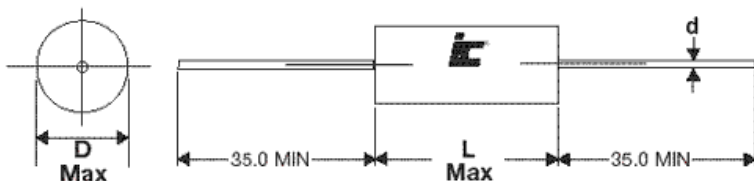
### FEATURES

High Voltage

### APPLICATIONS

Voltage Multipliers - Medical Equipment

|   |   |                                 |             |                            |              |
|---|---|---------------------------------|-------------|----------------------------|--------------|
| <b>Operating Temperature Range</b>  | <b>-40°C to +105°C</b>  |                                 |             |                            |              |
| <b>Capacitance Tolerance</b>  | ±10% at 1 kHz, 25°C<br>+5% optional   |                                 |             |                            |              |
| <b>Peak, AC voltage (50/60 Hz)</b>  | <b>WVDC</b>   | <b>2500</b>                     | <b>4000</b> | <b>6300</b>                | <b>10000</b> |
|   | <b>VAC</b>  | 500                             | 750         | 1000                       | 1200         |
| For T>+85°C, The voltage must be decreased by 1.25% per °C                            |   |                                 |             |                            |              |
| <b>Dissipation Factor (MAX)<br/>25°C</b>  | <b>Frequency (kHz)</b>  | <b>C&lt;0.1uF</b>               |             | <b>0.1uF&lt;C&lt;1.0uF</b> |              |
|   | <b>1</b>  | 0.8%                            |             | 0.8%                       |              |
|   | <b>10</b>   | 1.5%                            |             | 1.5%                       |              |
|   | <b>100</b>  | 3.0%                            |             | -                          |              |
| <b>Insulation Resistance<br/>@25°C (&lt;70% RH)for 1 minute at<br/>100VDC applied</b> | <b>Insulation Resistance</b>  |                                 |             |                            |              |
|   | 15000 MΩ  |                                 |             |                            |              |
| <b>Load Life</b>  | <b>2000 Hours, +85°C with 125% of rated voltage</b>                             |                                 |             |                            |              |
|   | <b>Capacitance Change</b>   | ≤5% of initially measured value |             |                            |              |
|   | <b>Dissipation Factor</b>   | <0.00 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 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 |             |                            |              |
| <b>Self Inductance</b>  | <1 nano-Henry per mm of body length and lead length                             |                                 |             |                            |              |
| <b>Capacitance Drift Factor</b>   | <1.0% after 2 years at 40°C   |                                 |             |                            |              |
| <b>Capacitance Temperature Coefficient</b>  | +400 ppm/°C, +200ppm/°C   |                                 |             |                            |              |
| <b>Dielectric Strength</b>  | <b>Terminal to Terminal</b>   |                                 |             |                            |              |
|   | 160% of VDC applied for 2 Seconds and 25°C                                      |                                 |             |                            |              |
| <b>Dielectric</b>   | Polyester   |                                 |             |                            |              |
| <b>Construction</b>   | Metallized film Internal series connected                                       |                                 |             |                            |              |
| <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   |
| ≤8            | 0.6 |
| 8<D≤22        | 0.8 |
| >22           | 1.0 |

# MWS

Metallized Polyester, Axial  
Lead, up to 10,000 VDC

| WVDC | Capacitance (µF) | IC PART NUMBER | dv/dt (v/µ sec.) | Dims DxL (mm) | d (MM) |
|------|------------------|----------------|------------------|---------------|--------|
| 2500 | 0.0047           | 472MWS252KG    | 200              | 8.5x29        | 0.6    |
| 2500 | 0.0068           | 682MWS252KG    | 200              | 9.5x29        | 0.8    |
| 2500 | 0.015            | 153MWS252KG    | 200              | 13x29         | 0.8    |
| 2500 | 0.022            | 223MWS252KG    | 200              | 14.5x29       | 0.8    |
| 2500 | 0.033            | 333MWS252KJ    | 125              | 14.5x34       | 0.8    |
| 2500 | 0.047            | 473MWS252KJ    | 125              | 17x34         | 0.8    |
| 2500 | 0.068            | 683MWS252KJ    | 125              | 20x34         | 0.8    |
| 2500 | 0.1              | 104MWS252KO    | 70               | 18.5x49.5     | 0.8    |
| 2500 | 0.15             | 154MWS252KO    | 70               | 21.5x49.5     | 0.8    |
| 2500 | 0.22             | 224MWS252KO    | 70               | 25.5x49.5     | 1      |
| 2500 | 0.33             | 334MWS252KO    | 70               | 31x49.5       | 1      |
| 2500 | 0.47             | 474MWS252KO    | 70               | 37x49.5       | 1      |
| 4000 | 0.0015           | 152MWS402KG    | 550              | 8.5x29        | 0.6    |
| 4000 | 0.0022           | 222MWS402KG    | 550              | 9.5x29        | 0.8    |
| 4000 | 0.0033           | 332MWS402KG    | 550              | 11x29         | 0.8    |
| 4000 | 0.0047           | 472MWS402KG    | 550              | 12.5x29       | 0.8    |
| 4000 | 0.0068           | 682MWS402KG    | 550              | 14.5x29       | 0.8    |
| 4000 | 0.01             | 103MWS402KG    | 550              | 17x29         | 0.8    |
| 4000 | 0.015            | 153MWS402KJ    | 300              | 15x34         | 0.8    |
| 4000 | 0.022            | 223MWS402KJ    | 300              | 18.5x34       | 0.8    |
| 4000 | 0.033            | 333MWS402KJ    | 300              | 22x34         | 0.8    |

| WVDC  | Capacitance (µF) | IC PART NUMBER | dv/dt (v/µ sec.) | Dims DxL (mm) | d (MM) |
|-------|------------------|----------------|------------------|---------------|--------|
| 4000  | 0.047            | 473MWS402KN    | 175              | 20x46.5       | 0.8    |
| 4000  | 0.068            | 683MWS402KN    | 175              | 23x46.5       | 1      |
| 4000  | 0.1              | 104MWS402KN    | 170              | 27.5x46.5     | 1      |
| 4000  | 0.15             | 154MWS402KN    | 170              | 33.5x46.5     | 1      |
| 6300  | 0.0015           | 152MWS632KL    | 800              | 11x38         | 0.8    |
| 6300  | 0.0022           | 222MWS632KL    | 800              | 13x38         | 0.8    |
| 6300  | 0.0033           | 332MWS632KL    | 800              | 15x38         | 0.8    |
| 6300  | 0.0047           | 472MWS632KL    | 800              | 17x38         | 0.8    |
| 6300  | 0.0068           | 682MWS632KO    | 400              | 15.5x49.5     | 0.8    |
| 6300  | 0.01             | 103MWS632KO    | 400              | 18x49.5       | 0.8    |
| 6300  | 0.015            | 153MWS632KO    | 400              | 21.5x49.5     | 0.8    |
| 6300  | 0.022            | 223MWS632KO    | 400              | 25.5x49.5     | 1      |
| 6300  | 0.033            | 333MWS632KO    | 400              | 30x49.5       | 1      |
| 6300  | 0.047            | 473MWS632KO    | 400              | 36x49.5       | 1      |
| 10000 | 0.0015           | 152MWS103KT    | 1200             | 15.5x63       | 0.8    |
| 10000 | 0.0022           | 222MWS103KT    | 1200             | 17.5x63       | 0.8    |
| 10000 | 0.0033           | 332MWS103KT    | 1200             | 22x63         | 1      |
| 10000 | 0.0047           | 472MWS103KT    | 1200             | 25x63         | 1      |
| 10000 | 0.0068           | 682MWS103KT    | 1200             | 28.5x63       | 1      |
| 10000 | 0.01             | 103MWS103KT    | 1200             | 33x63         | 1      |
| 10000 | 0.015            | 153MWS103KT    | 1200             | 39x63         | 1      |