



- High Voltage
- Voltage Multipliers

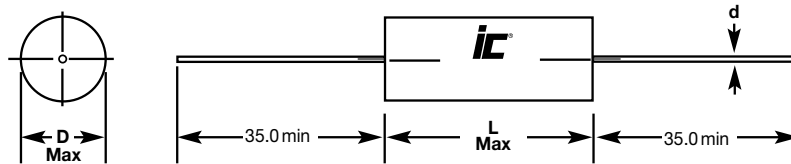
|   |            |  |         |                                |         |  |
|---|------------|--|---------|--------------------------------|---------|--|
| <b>Operating Temperature Range</b>                                    |            | -55°C to +105°C  |         |                                |         |  |
| <b>Capacitance Tolerance</b>  |            | +/- 10% at 1kHz, 20°C  |         |                                |         |  |
| <b>Rated Voltage</b>  | VDC        | 2500   | 4000    | 6300                           | 10000   |  |
|   | VAC        | 500  | 750     | 1000                           | 1200    |  |
| For T>85°C the rated voltage must be decreased by 1.25% per °C        |            |  |         |                                |         |  |
| <b>Dissipation Factor (max) at 20°C.</b>                              | Freq (kHz) |  | C<0.1µF |                                | C>0.1µF |  |
|   | 1          |  | 0.8%    |                                | 0.8%    |  |
|   | 10         |  | 1.5%    |                                | 1.5%    |  |
|   | 100        |  | 3.0%    |                                |         |  |
| <b>Insulation Resistance @20°C(&lt;70% RH) for 1 minute at 100VDC</b> |            | ≥100,000MΩ   |         |                                |         |  |
| <b>Load Life Test</b>   |            | 2000 hours at 125% of rated voltage and at 85°C                            |         |                                |         |  |
|   |            | Capacitance change   |         | ≤5% change from initial value. |         |  |
|   |            | Dissipation Factor   |         | ≤0.003 at 10kHz and 25°C       |         |  |
|   |            | Insulation Resistance  |         | ≥50% of minimum specification  |         |  |
| <b>Damp Heat Test</b>   |            | 56 days at +40°C+/-2°C with 93%+/-2% relative humidity                     |         |                                |         |  |
|   |            | Capacitance change   |         | ≤5% change from initial value. |         |  |
|   |            | Dissipation Factor   |         | ≤0.005 at 1kHz and 25°C        |         |  |
|   |            | Insulation Resistance  |         | ≥50% of minimum specification  |         |  |
| <b>Self inductance</b>  |            | <1nH/mm of body length and lead wire length.                               |         |                                |         |  |
| <b>Capacitance drift</b>  |            | <1.0% up to 40°C after 2 years   |         |                                |         |  |
| <b>Temperature Coefficient</b>  |            | +400ppm/°C +/- 200ppm/°C   |         |                                |         |  |
| <b>Dielectric</b>   |            | Polyester  |         |                                |         |  |
| <b>Electrodes</b>   |            | Vacuum deposited metal layers  |         |                                |         |  |
| <b>Construction</b>   |            | Extended metallized carrier film, internal series connections.             |         |                                |         |  |
| <b>Leads</b>  |            | Tinned copper wire   |         |                                |         |  |
| <b>Coating</b>  |            | Flame retardant polyester tape wrap (UL510) with epoxy end seals (UL94V-0) |         |                                |         |  |

## PHYSICAL DIMENSIONS

| WVDC<br>(VAC)<br>μF | 2500<br>(500) | 4000<br>(750) | 6300<br>(1000) | 10000<br>(1200) |
|---------------------|---------------|---------------|----------------|-----------------|
| 0.0015              | →             | 8.5x29        | 11x40.5        | 15.5x63         |
| 0.0022              | →             | 9.5x29        | 13x40.5        | 17.5x63         |
| 0.0033              | →             | 11x29         | 15x40.5        | 22x63           |
| 0.0047              | 8.5x29        | 12.5x29       | 17x40.5        | 25x63           |
| 0.0068              | 9.5x29        | 14.5x29       | 15.5x49.5      | 28.5x63         |
| 0.01                | 11x29         | 17x29         | 18x49.5        | 33x63           |
| 0.015               | 13x29         | 15x34         | 21.5x49.5      | 39x63           |
| 0.022               | 14.5x29       | 18.5x34       | 25.5x49.5      |                 |
| 0.033               | 14.5x34       | 22x34         | 30x49.5        |                 |
| 0.047               | 17x34         | 20x46.5       | 36x49.5        |                 |
| 0.068               | 20x34         | 23x46.5       |                |                 |
| 0.1                 | 18.5x49.5     | 27.5x46.5     |                |                 |
| 0.15                | 21.5x49.5     | 33.5x46.5     |                |                 |
| 0.22                | 25.5x49.5     |               |                |                 |
| 0.33                | 31x49.5       |               |                |                 |
| 0.47                | 37x49.5       |               |                |                 |

Convert to inches, divide by 25.4

DxL(mm)



| Lead Diameter |     |
|---------------|-----|
| D             | d   |
| <8.0          | 0.6 |
| 8≤D≤22        | 0.8 |
| >22           | 1.0 |

## STANDARD PART LISTING

| Capacitance (µF) | WVDC  | IC <sup>®</sup> PART NUMBER | dv/dt (v/µs) | Dimension DxL (mm) |
|------------------|-------|-----------------------------|--------------|--------------------|
| 0.0015           | 4000  | 152MWS402KG                 | 550          | 8.5x29             |
| 0.0015           | 6300  | 152MWS632KL                 | 800          | 11x40.5            |
| 0.0015           | 10000 | 152MWS103KT                 | 1200         | 15.5x63            |
| 0.0022           | 4000  | 222MWS402KG                 | 550          | 9.5x29             |
| 0.0022           | 6300  | 222MWS632KL                 | 800          | 13x40.5            |
| 0.0022           | 10000 | 222MWS103KT                 | 1200         | 17.5x63            |
| 0.0033           | 4000  | 332MWS402KG                 | 550          | 11x29              |
| 0.0033           | 6300  | 332MWS632KL                 | 800          | 15x40.5            |
| 0.0033           | 10000 | 332MWS103KT                 | 1200         | 22x63              |
| 0.0047           | 2500  | 472MWS252KG                 | 200          | 8.5x29             |
| 0.0047           | 4000  | 472MWS402KG                 | 550          | 12.5x29            |
| 0.0047           | 6300  | 472MWS632KL                 | 800          | 17x40.5            |
| 0.0047           | 10000 | 472MWS103KT                 | 1200         | 25x63              |
| 0.0068           | 2500  | 682MWS252KG                 | 200          | 9.5x29             |
| 0.0068           | 4000  | 682MWS402KG                 | 550          | 14.5x29            |
| 0.0068           | 6300  | 682MWS632KO                 | 400          | 15.5x49.5          |
| 0.0068           | 10000 | 682MWS103KT                 | 1200         | 28.5x63            |
| 0.01             | 2500  | 103MWS252KG                 | 200          | 11x29              |
| 0.01             | 4000  | 103MWS402KG                 | 550          | 17x29              |
| 0.01             | 6300  | 103MWS632KO                 | 400          | 18x49.5            |
| 0.01             | 10000 | 103MWS103KT                 | 1200         | 33x63              |
| 0.015            | 2500  | 153MWS252KG                 | 200          | 13x29              |

| Capacitance (µF) | WVDC  | IC <sup>®</sup> PART NUMBER | dv/dt (v/µs) | Dimension DxL (mm) |
|------------------|-------|-----------------------------|--------------|--------------------|
| 0.015            | 4000  | 153MWS402KJ                 | 300          | 15x34              |
| 0.015            | 6300  | 153MWS632KO                 | 400          | 21.5x49.5          |
| 0.015            | 10000 | 153MWS103KT                 | 1200         | 39x63              |
| 0.022            | 2500  | 223MWS252KG                 | 200          | 14.5x29            |
| 0.022            | 4000  | 223MWS402KJ                 | 300          | 18.5x34            |
| 0.022            | 6300  | 223MWS632KO                 | 400          | 25.5x49.5          |
| 0.033            | 2500  | 333MWS252KJ                 | 125          | 14.5x34            |
| 0.033            | 4000  | 333MWS402KJ                 | 300          | 22x34              |
| 0.033            | 6300  | 333MWS632KO                 | 400          | 30x49.5            |
| 0.047            | 2500  | 473MWS252KJ                 | 125          | 17x34              |
| 0.047            | 4000  | 473MWS402KN                 | 175          | 20x46.5            |
| 0.047            | 6300  | 473MWS632KO                 | 400          | 36x49.5            |
| 0.068            | 2500  | 683MWS252KJ                 | 125          | 20x34              |
| 0.068            | 4000  | 683MWS402KN                 | 175          | 23x46.5            |
| 0.1              | 2500  | 104MWS252KO                 | 70           | 18.5x49.5          |
| 0.1              | 4000  | 104MWS402KN                 | 170          | 27.5x46.5          |
| 0.15             | 2500  | 154MWS252KO                 | 70           | 21.5x49.5          |
| 0.15             | 4000  | 154MWS402KN                 | 170          | 33.5x46.5          |
| 0.22             | 2500  | 224MWS252KO                 | 70           | 25.5x49.5          |
| 0.33             | 2500  | 334MWS252KO                 | 70           | 31x49.5            |
| 0.47             | 2500  | 474MWS252KO                 | 70           | 37x49.5            |