



- High Voltage
- Voltage Multipliers

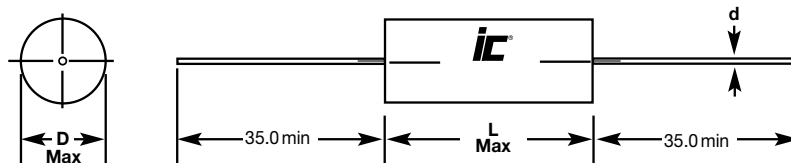
|                                                                   |     |                                                                               |      |         |                                |         |
|-------------------------------------------------------------------|-----|-------------------------------------------------------------------------------|------|---------|--------------------------------|---------|
| Operating Temperature Range                                       |     | -55°C to +105°C                                                               |      |         |                                |         |
| Capacitance Tolerance                                             |     | +/- 10% at 1kHz, 20°C                                                         |      |         |                                |         |
| Rated Voltage                                                     | 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                |      |         |                                |         |
| Dissipation Factor<br>(max) at 20°C.                              |     | Freq (kHz)                                                                    |      | C<0.1µF |                                | C>0.1µF |
|                                                                   |     | 1                                                                             |      | 0.8%    |                                | 0.8%    |
|                                                                   |     | 10                                                                            |      | 1.5%    |                                | 1.5%    |
|                                                                   |     | 100                                                                           |      | 3.0%    |                                |         |
| Insulation Resistance<br>@20°C(<70% RH)<br>for 1 minute at 100VDC |     | ≥100,000MΩ                                                                    |      |         |                                |         |
| Load Life Test                                                    |     | 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  |         |
| Damp Heat Test                                                    |     | 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  |         |
| Self inductance                                                   |     | <1nH/mm of body length and lead wire length.                                  |      |         |                                |         |
| Capacitance drift                                                 |     | <1.0% up to 40°C after 2 years                                                |      |         |                                |         |
| Temperature Coefficient                                           |     | +400ppm/°C +/- 200ppm/°C                                                      |      |         |                                |         |
| Dielectric                                                        |     | Polyester                                                                     |      |         |                                |         |
| Electrodes                                                        |     | Vacuum deposited metal layers                                                 |      |         |                                |         |
| Construction                                                      |     | Extended metallized carrier film, internal series connections.                |      |         |                                |         |
| Leads                                                             |     | Tinned copper wire                                                            |      |         |                                |         |
| Coating                                                           |     | Flame retardant polyester tape wrap (UL510)<br>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<br>( $\mu$ F) | WVDC  | <b>IC</b> PART<br>NUMBER | dv/dt<br>(v/ $\mu$ s) | Dimension<br>DxL<br>(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  | 682MWS632K0              | 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  | 103MWS632K0              | 400                   | 18x49.5                  |
| 0.01                      | 10000 | 103MWS103KT              | 1200                  | 33x63                    |
| 0.015                     | 2500  | 153MWS252KG              | 200                   | 13x29                    |

| Capacitance<br>( $\mu$ F) | WVDC  | <b>IC</b> PART<br>NUMBER | dv/dt<br>(v/ $\mu$ s) | Dimension<br>DxL<br>(mm) |
|---------------------------|-------|--------------------------|-----------------------|--------------------------|
| 0.015                     | 4000  | 153MWS402KJ              | 300                   | 15x34                    |
| 0.015                     | 6300  | 153MWS632K0              | 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  | 223MWS632K0              | 400                   | 25.5x49.5                |
| 0.033                     | 2500  | 333MWS252KJ              | 125                   | 14.5x34                  |
| 0.033                     | 4000  | 333MWS402KJ              | 300                   | 22x34                    |
| 0.033                     | 6300  | 333MWS632K0              | 400                   | 30x49.5                  |
| 0.047                     | 2500  | 473MWS252KJ              | 125                   | 17x34                    |
| 0.047                     | 4000  | 473MWS402KN              | 175                   | 20x46.5                  |
| 0.047                     | 6300  | 473MWS632K0              | 400                   | 36x49.5                  |
| 0.068                     | 2500  | 683MWS252KJ              | 125                   | 20x34                    |
| 0.068                     | 4000  | 683MWS402KN              | 175                   | 23x46.5                  |
| 0.1                       | 2500  | 104MWS252K0              | 70                    | 18.5x49.5                |
| 0.1                       | 4000  | 104MWS402KN              | 170                   | 27.5x46.5                |
| 0.15                      | 2500  | 154MWS252K0              | 70                    | 21.5x49.5                |
| 0.15                      | 4000  | 154MWS402KN              | 170                   | 33.5x46.5                |
| 0.22                      | 2500  | 224MWS252K0              | 70                    | 25.5x49.5                |
| 0.33                      | 2500  | 334MWS252K0              | 70                    | 31x49.5                  |
| 0.47                      | 2500  | 474MWS252K0              | 70                    | 37x49.5                  |