

## Ultra High Ohmic High Voltage High Frequency Resistors $G\Omega$ , $T\Omega$

Willow Technologies Ltd. Offers UR Series to Ultra High Ohmic of requirements at reasonable prices, An epoxy conformal coat, which is very good humidity protection, good Voltage of Coefficient.



| Model Nr. | 1) Wattage | 2) Max.<br>Continuous<br>Oper. Volt[kV] | **Impulse<br>Voltage<br>1.2/50µSec | Resistance<br>[ ohm ]<br>Min. Max. | SMD<br>type | Dimensions in millimeters<br>(inches) |                     |     |
|-----------|------------|---|------------------------------------|------------------------------------|-------------|---------------------------------------|---------------------|-----|
|           |            |   |                                    |                                    |             | A                                     | В                   | C   |
| UR1       | 0.5        | 2.0                                     | 4.0                                | 0.7G 50G                           | N/A         | 15+/-1.5<br>(.590)                    | 5.0+/-1.5<br>(.197) | 0.8 |
| UR1.7     | 0.7        | 5.0                                     | 10.0                               | 0.7G 1T                            | N/A         | 25.4+/-1.5<br>(1.0)                   | 5.0+/-1.5<br>(.197) | 0.8 |
| UR2       | 1.0        | 5.0                                     | 10.0                               | 0.7G 1T                            | available   | 24.0+/-1.5<br>(.944)                  | 8.0+/-1.0<br>(.314) | 1.0 |
| UR2.5     | 1.5        | 10.0                                    | 20.0                               | 1G 10T                             | available   | 39.0+/-1.5<br>(1.50)                  | 8.0+/-1.0<br>(.314) | 1.0 |
| UR3       | 2.0        | 12.0                                    | 24.0                               | 1G 10T                             | available   | 52.0+/-1.5<br>(2.04)                  | 8.0+/-1.0<br>(.314) | 1.0 |

<sup>+</sup> Custom dimension & Ohnic Value available upon request (100TΩ available on UR3 as custom requirement)

<sup>1)</sup> wattage in 25 °C

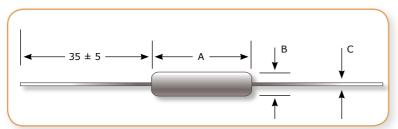
<sup>2)</sup> Vdc, Vrms

<sup>\*\*</sup> Single impulse standard

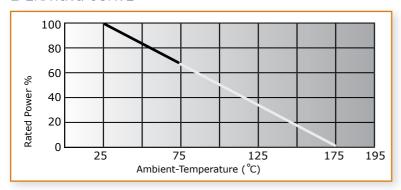




### DIMENSIONS [mm]



### **D**ERATING CURVE



### SPECIFICATIONS

# **Endurable Harsh to Environment** (Temperature ):

-55°C to +195°C

Max. broken temperature of resistives is  $600^{\circ}$ C (for 70min.)

#### Thermal Shock:

Mil-Std-202, Method- 107, Cond. C,  $\Delta R$  0.50% max.

#### Load Life:

1.000 hours at rated power  $\Delta R$  0.7% max.

#### **Insulation Resistance:**

10,000M $\Omega$  Min.

#### Cap & Lead of Material:

Tinned Cap., tinned copper wire

#### **Encapsulation:**

Anti-humidity Epoxy conformal.coat

#### **Resistive Material:**

Thick Film.

## Contact method between Resistives and Termination Caps:

Individual Conductive Pads . So , called "NCR" Non-contact resistance.

| Temperature<br>Coefficient  | R-Range  | 1GΩ to 9GΩ      | 10GΩ to<br>300GΩ              | $400$ G $\Omega$ to $1$ T $\Omega$ | 1.1TΩ to<br>10TΩ |        | ΔR taken at 25°C<br>and 70°C         |  |
|-----------------------------|----------|-----------------|-------------------------------|------------------------------------|------------------|--------|--------------------------------------|--|
| Coefficient                 | [ppm/°C] | 200             | 300                           | 1000                               | 1500             |        |                                      |  |
| Voltage<br>Coefficient      | R-Range  | 10GΩ to<br>19GΩ | 20G $\Omega$ to 100G $\Omega$ | 200G $\Omega$ to 1T $\Omega$       | 10ΤΩ             |        | Measured at<br>100vdc and<br>1000vdc |  |
|                             | VCR      | 0.002%/V        | 0.007%/V                      | 0.01%/V                            | 0.05%/V          |        |                                      |  |
| Resistance<br>Tolerance [%] | R-Range  | 1GΩ             | 2GΩ ~10GΩ                     | 20GΩ ~<br>100GΩ                    | 200GΩ~1TΩ        | 10ΤΩ   | Measured at<br>1000vdc<br>Standard   |  |
|                             | Std.     | +/-1%(F)        | +/-2%(G)                      | +/-5%(J)                           | +/-10%(K)        | +/-20% |                                      |  |
|                             | Custom   | +/-0.5          | +/-1%                         | +/-2%                              | +/-5%            | +/-10% | 2333344                              |  |

cf.: The described specifications & dimensions subject to change without notice.