

Cylindrical Ultra High Ohmic
Resistors, Thick film, Non-Inductive

VOICE : +82-31-429-6379
FAX : +82-31-429-9127
E-MAIL : info@3RLab.com



Ultra High Ohmic High Voltage High Frequency Resistors GΩ,TΩ

3RLAB 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.

UR Precision High OHmic Resistor, the main usage ;

UR-series of resistors are desinged to help provide current pulse limiting, detection of trickle current .

Tolerance : 0.5% 1% 2% 5% 10%

* Resistance rating : 1GΩ to 100TΩ

* NCR design : Non-contact resistance design between resistives and termination cap ,there is 3RLab's unique of conductive pad.

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

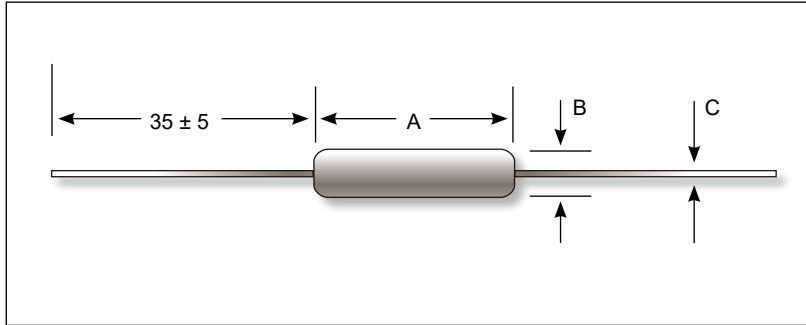
+ Custom dimension & Ohmic Value available upon request (100TΩ available on UR3 as custom requirement)

1) wattage in 25 °C

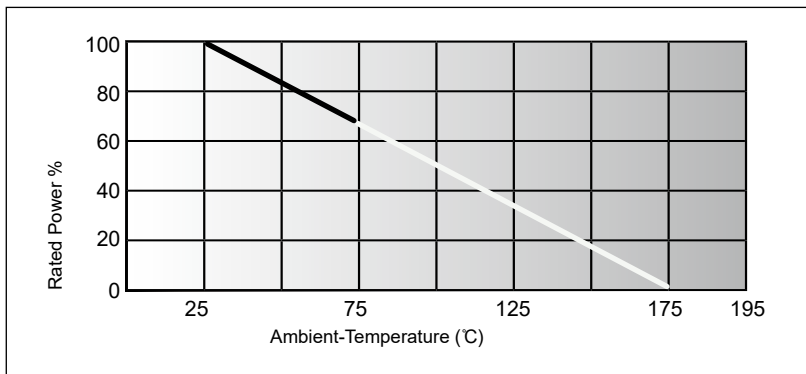
2) Vdc, Vrms

** Single impulse standard

DIMENSIONS [mm]



DERATING CURVE



SPECIFICATIONS

Endurable Harsh to Environment

(Temperature) :

-55°C to +195°C Max.
broken temperature of resistives is 600°C (for 70min.)

Thermal Shock :

Mil-Std-202, Method- 107, Cond. C, ΔR 0.50% max.

Load Life :

1.000 hours at rated power ΔR 0.7% max.

Insulation Resistance :

10,000MΩ 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 Coefficient | R-Range | 1GΩ to 9GΩ | 10GΩ to 300GΩ | 400GΩ to 1TΩ | 1.1TΩ to 10TΩ | ΔR taken at 25°C and 70°C | |
| | [ppm/°C] | 200 | 300 | 1000 | 1500 | | |
| Voltage Coefficient | R-Range | 10GΩ to 19GΩ | 20GΩ to 100GΩ | 200GΩ to 1TΩ | 10TΩ | Measured at 100Vdc and 1000Vdc | |
| | VCR | 0.002%/V | 0.007%/V | 0.01%/V | 0.05%/V | | |
| Resistance Tolerance [%] | R-Range | 1GΩ | 2GΩ ~10GΩ | 20GΩ ~ 100GΩ | 200GΩ~1TΩ | 10TΩ | Measured at 1000Vdc Standard |
| | Std. | +/-1%(F) | +/-2%(G) | +/-5%(J) | +/-10%(K) | +/-20% | |
| | Custom | +/-0.5 | +/-1% | +/-2% | +/-5% | +/-10% | |

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