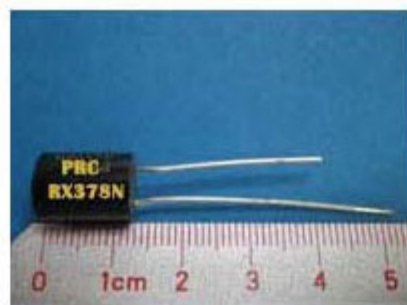
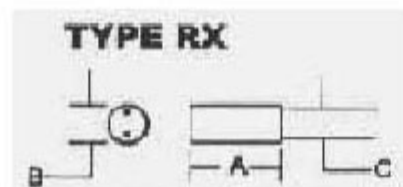


## RX378N .5W Ultra Precision Wire Wound Printed Circuit Resistor



### Electrical & Physical Specifications:

<b>A-Length:</b>	12.7mm (.500")
<b>B-Diameter:</b>	9.53mm (.375")
<b>C-Lead Dimensions:</b>	.032" dia. x 1.0" long
<b>Lead Spacing:</b>	.200"

### RX Series Engineering Attributes:

#### RESISTANCE & TOLERANCES

You can select any Ohmic value or decimal part of an Ohm with tolerances to  $\pm 0.005\%$ . 10 $\Omega$  minimum resistance for  $\pm 0.01\%$  tolerance. See figure #2 shown below.

#### TCR CHARACTERISTIC

##### Standard:

100 $\Omega$  & higher values:  $0 \pm 5$  ppm/ $^{\circ}\text{C}$ .

For values below 100 $\Omega$ :  $0 \pm 15$  ppm/ $^{\circ}\text{C}$ .

##### Special:

100 $\Omega$  & higher:  $0 \pm 1$  ppm/ $^{\circ}\text{C}$ , matching to  $0 \pm 5$  ppm/ $^{\circ}\text{C}$ .

Please specify temperature span of operation. The TCR is calculated between +25 $^{\circ}\text{C}$ . & +100 $^{\circ}\text{C}$ .

#### POWER VS. AMBIENT TEMPERATURE

All Ultra Precision Resistors are designed for full load based upon  $\pm 1\%$  resistance tolerance providing the ambient temperature (+) plus the rise in temperature due to self-heating, does not exceed +125 $^{\circ}\text{C}$ . Derated to zero power @ +145 $^{\circ}\text{C}$ ., See figure #1 shown below.

#### STABILITY

To  $\pm 0.001\%/yr.$  @ +25 $^{\circ}\text{C}$ . with no Load.

#### REDUCTION OF THERMAL EMF USING COPPER TERMINALS:

Less than  $\pm 3$  microvolts/ $^{\circ}\text{C}$ . emitted.

#### INDUCTANCE

Standard parts in this series are inductively wound. Non-inductive balanced reverse pi windings are available, simply add suffix letter "N" to the part # when placing your order.

#### PROTECTIVE SEAL

Features a stress free base coat as well as an epoxy casing that is resistant to solder heat & solvents.

#### MARKING

PRC stamp, part type & name,  $\Omega$  value & tolerance, physical size permitting.

### Type RX Derating Table\*

For  $\pm 1\%$  resistance tolerance apply up to 100% of rated power to +125 Degrees Celsius. derated to zero @ +145 Degrees Celsius.

For  $\pm 1/2\%$  (0.5%) resistance tolerance apply up to 75% of rated power to +125 Degrees Celsius. derated to zero @ +140 Degrees Celsius.

For  $\pm 1/4\%$  (0.25%) resistance tolerance apply up to 50% of rated power to +125 Degrees Celsius. derated to zero @ +135 Degrees Celsius.

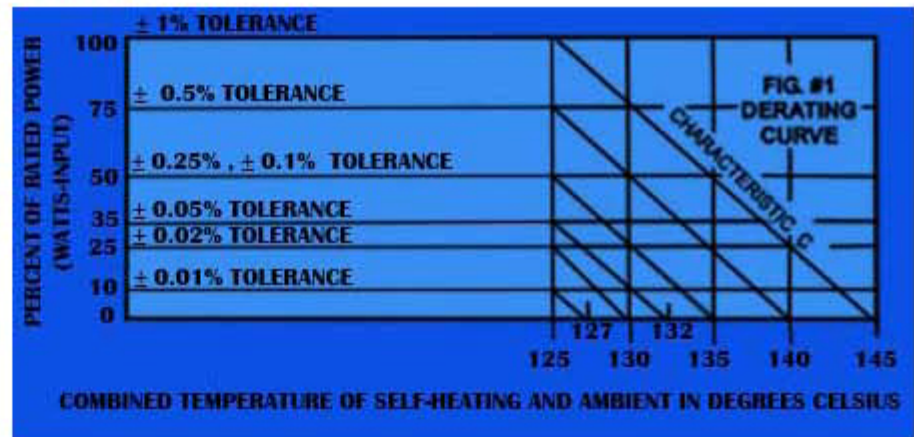
For  $\pm 1/10\%$  (0.1%) resistance tolerance apply up to 50% of rated power to +125 Degrees Celsius. derated to zero @ +135 Degrees Celsius.

For  $\pm 1/20\%$  (0.05%) resistance tolerance apply up to 35% of rated power to +125 Degrees

Celsius, derated to zero @ +132 Degrees Celsius.

\* Percent of Rated Power vs. Combined Temp. of Self-Heating and Ambient (in °C).

## Detailed Images



Derating Curve



Minimum Resistance vs. Tolerance

### Details

SKU	RX378N
Type	Printed Circuit
Length	12.7mm (.500")
Lead Dimensions	.032" dia. x 1.0" long; spacing: 0.200"
Diameter	9.53mm (.375")
TCR Char.	0±5ppm (Std.) ... to 0±1ppm /°C.
Temperature	-65°C. to +125°C.
Resistance	from .1Ω to 500KΩ
Tolerance	±.01% (std.) ... from ±1% to ±.005%
Stability	to ±.001% per year @25°C
Max Watts	.5
Max Volts	200