

## SX177 .5W Wire Wound High Precision Axial Resistor



# SX177

### Electrical & Physical Specifications:

<b>A- Length:</b>	14.78mm (.582")
<b>B-Diameter:</b>	4.83mm (.190")
<b>Lead Dimensions:</b>	.028" dia. X 1.500" long
<b>Max Watts @ 1% Tol:</b>	.5
<b>Max Volts @ 1% Tol:</b>	500
<b>Temperature Range:</b>	-55°C. to +125°C
<b>Resistance (Ω):</b>	.1 Min to 540K Max



### SX Series Engineering Attributes:

#### RESISTANCE & TOLERANCES

You can select any Ohmic value or decimal part of an Ohm from .01Ω to 6MΩ (MegaOhm or MEG) with tolerances to ±.05%. For closer resistance tolerances refer to the Ultra Precision HR Series

#### TCR CHARACTERISTIC

Standard: **0±10ppm/°C.** for **100Ω & higher.**

Standard: **0±15ppm/°C.** for values **below 100Ω**

\*TCR is calculated between +25°C. & +100°C.

-For lower specific TCRs to **±1ppm/°C.**, please refer to the Ultra Precision HR Series to satisfy your specifications.

-For higher specific TCRs to **±6000ppm/°C.**, please refer to the Compensator Series to satisfy your specifications.

#### POWER VS. AMBIENT TEMPERATURE

All SX High Precision Resistors are designed for full load based upon ±1% resistance tolerance providing the ambient temp (+) the rise in temp. due to self-heating, does not exceed +125°C. Derated to zero power @ +125°C. Refer to Derating Table shown below.

#### STABILITY VS. TIME

To ±.005%/yr. @ 25°C. with no Load.

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

Less than ±3 microvolts/°C. emitted.

#### PROTECTIVE COATING SEAL

Stress free solvent resistant silicone/epoxy seal.

#### MARKING (Identification)

PRC stamp, part type & name, Ω value & tolerance, physical size permitting.

#### INDUCTANCE

Standard SX series resistors are inductively wound. Non-inductive windings are available, simply add suffix letter "N" in the part name.

**\*Please specify the ambient temperature span of your operation when placing your order.**

#### Type SX Derating Table:\*

For ±1% resistance tolerance apply up to 100% of rated power to +125°C. derated to zero power at 145°C.

For ±½% (0.5%) resistance tolerance apply up to 75% of rated power to +125°C. derated to zero power at 140°C.

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

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

For  $\pm 1/20\%$  (0.05%) resistance tolerance apply up to 35% of rated power to +125°C. derated to zero power at 132°C.

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

## Details

SKU	SX177
Type	Axial-Lead
Length	14.78mm (.582")
Lead Dimensions	.028" dia. X 1.500" long
Diameter	4.83mm (.190")
TCR Char. Temperature	to $0 \pm 10 \text{ppm}/^\circ\text{C}$ . (between +25°C. and +100°C.) -55°C. to +125°C
Resistance	.1Ω to 540KΩ
Tolerance	to $\pm .05\%$
Stability	to $\pm .005\%/ \text{yr.}$ at +25°C
Max Watts	.5
Max Volts	500
Lead Free	Yes