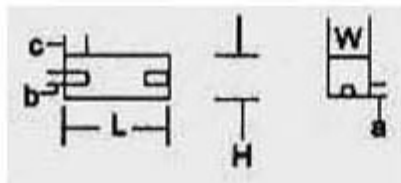


## ST35 1K Ohm (std.) .1W +3500 PPM Rectangular Wire Wound SMD Compensator



### Electrical & Physical Specifications:

**H-Height** 3.18mm (.125")

**L-Length** 9.14mm (.360")

**W-Width** 3.18mm (.125")

**Tab dimensions:** a= .075" b= .075" c= .100" d= .260"

### Compensator Attributes:

#### LINEAR COMPENSATION

PRC's type PT/ST (+) TCR Characteristics +3500 PPM/°C. linear tracking temperature sensitive resistors help you develop the desired compensation for true RMS measurements...and can offset errors in dB output circuits.

#### TOLERANCE FOR (+) 3500 PPM/°C.

Less than  $\pm 100$  PPM/°C from +25°C. to 100°C. For example, If you are looking for a systems offset of +3350 PPM/°C to 3450 PPM/°C...try a few engineering samples of our (std.) off-the-shelf compensators. We are confident you can achieve dramatic results. The element wire used on our type PT/ST, as a rule, is very close to +3350 PPM/°C. @ 25°C. & lower than +3450 PPM/°C. @ 100°C. See figure #4 shown below.

#### OFF THE SHELF FOR IMMEDIATE DELIVERY

Thru-hole & SMD designs are available for evaluation & testing. We have our PT series for 2 terminal type or our AT35 for 4 terminal type. If you have plans for SMT our type ST35 is a drop in replacement for the thru-hole part w/ interchangeable specs. All our (std.) 1000Ω  $\pm 1\%$  +3500 PPM Compensators are in stock!

#### CUSTOM COMPENSATORS

We can customize any of our compensators to fit your specs in any Ohmic value from 1Ω to 50KΩ We have pure metals, alloys, & composite windings available. All of which are extremely linear, reasonably priced & delivered quickly.

#### TRACKING CHART

Constant temperature oil bath computer tracking charts are available to match your temperature span & behavior specs exactly.

#### TCR CHARACTERISTICS AVAILABLE

Calculated between +25°C. & +100°C. : +80 PPM/°C., +140 PPM/°C., +400 PPM/°C., +1400 PPM/°C., +3500 PPM/°C., +3930 PPM/°C., +4300 PPM/°C., +4500 PPM/°C., +5000 PPM/°C., +6000 PPM/°C.,

#### COMPENSATORS VS. POWER

PRC's positive (+) TCR resistors are used to offset negative (-) ambient temperature changes or counter self-generating shifts in resistance w/ an excitation of power to .25W @ +125°C. (Derated to 0W @ +150°C.)

#### STABILITY (No Load)

Standard:  $\pm 0.05\%$ /year @ 25°C.; Special:  $< \pm 0.01\%$ /year @ 25°C.

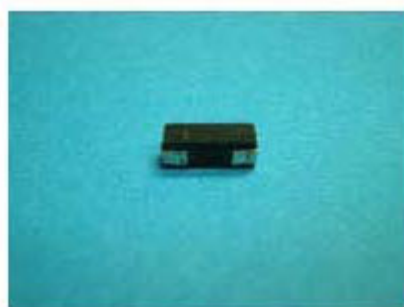
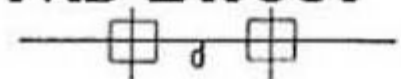
#### PROTECTIVE SEAL

Standard: Conformal silicone or epoxy case. Special: Thermal conductive insulating coatings or uncoated.

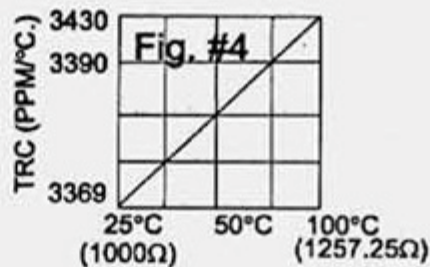
#### MARKING

PRC stamp, part type, resistance value, tolerance & TCR characteristics, physical size permitting.

## PAD LAYOUT



## Detailed Images



e.g. 1000Ω at 25° is 1257.25Ω at +100 °C.

$$TCR = \frac{R@100^{\circ} C. - R@25^{\circ} C.}{R@25^{\circ} C. \times 75} \times 10^6$$

$$TCR = \frac{1257.25 - 1000}{1000 \times 75} \times 10^6$$

$$TCR = \frac{257.25}{75000} \times 10^6$$

$$TCR = +3430 \text{ PPM/}^{\circ} C. \text{ OR } 3.4 \Omega / ^{\circ} C.$$

### Res/Temp Curve & TCR Equation for nominal 1K ±1% +3500 PPM Compensator

#### Details

SKU	ST35
Type	SMD
Length	9.14mm (.360")
Width	3.18mm (.125")
Tab Dimensions	a= .075" b= .075" c= .100" d= .260"
Height	3.18mm (.125")
TCR Char.	+3500ppm/°C.
Temperature	-65°C. to +150°C.
Resistance	1KΩ (Std.) from 1Ω to 50KΩ
Tolerance	0±1% (std.) to ±.05%
Stability	to ±.01% per year @ +25°C
Max Watts	.1
Max Volts	100