

Si430 Silicon Diode Temperature Sensor

Si430 Silicon Diodes offer the industry's highest accuracy in an interchangeable diode temperature sensor. The new CAP package is the smallest encapsulated diode mount on the market while the SMD package offers the utility of a compact surface mount.

Specifications

Range: 1.5K – 400K

Excitation: 10 μ A \pm 0.1%

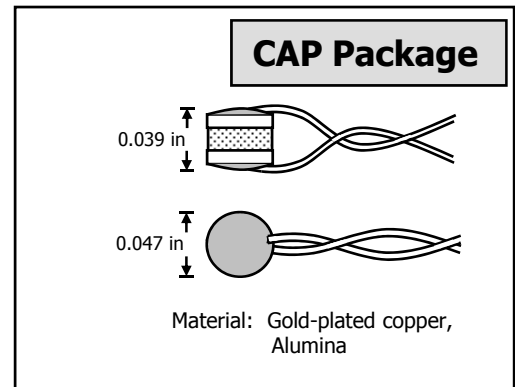
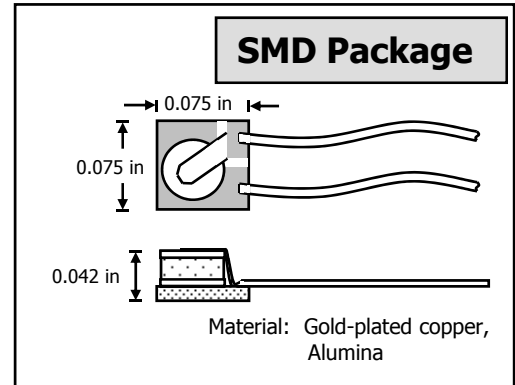
Repeatability: 10mK @4.2K, 16mK @77K, 75mK @273K

Magnetic Field Use: Not recommended for fields above 0.1 Tesla below 40K

Use in Radiation: Not recommended for use in high radiation environments.

Leads: 37 AWG Copper, Polyimide insulation, 3 inches standard length

Mounting Options: SMD, CAP, Canister, 21 Bobbin, 22 Bobbin, 25 Bobbin (see Reverse)



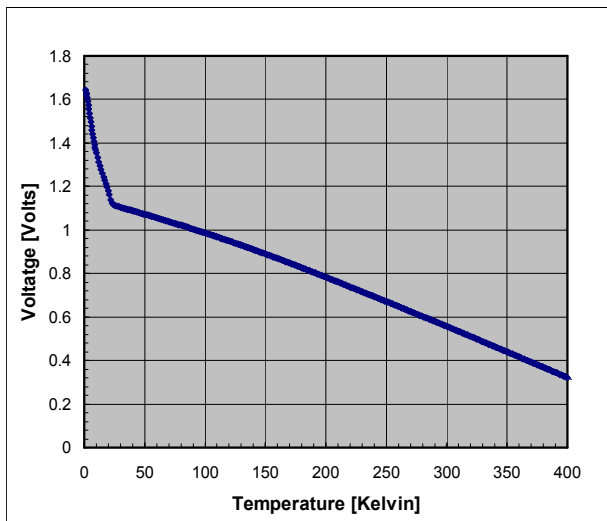
Tolerance Groupings*

	1.5K to 30K	30K to 100K	100K to 400K
Enhanced	\pm 0.1K	\pm 0.2K	\pm 1.0K
Standard	\pm 0.2K	\pm 0.4K	\pm 1.0K

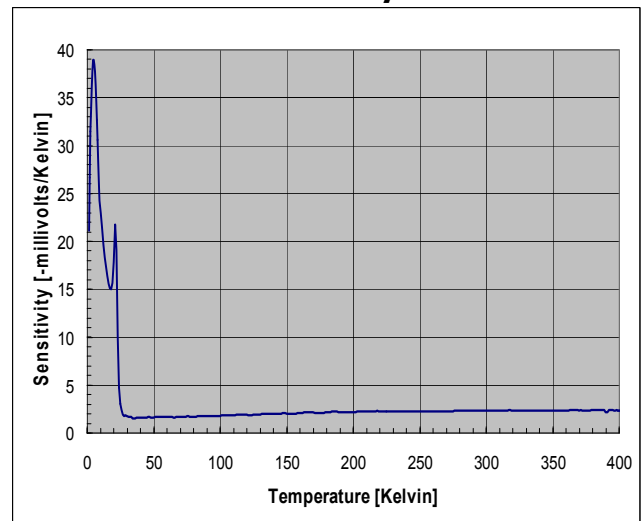
*Other tolerances available, consult manufacturer

Temperature	Sensitivity
4.2 K	38 mV/K
77 K	1.7 mV/K
273 K	2.3 mV/K

Response Curve



Sensitivity



Custom Leads for Cans and Bobbins

Two Wire Options

36 AWG Copper, Twisted
Insulation: Teflon

30 AWG Copper, Twisted (Available on Model 25 only)
Insulation: Teflon

36 AWG Phosphor-Bronze, Bonded
Insulation: Polyimide

32 AWG Phosphor-Bronze, Bonded
Insulation: Polyimide

30 AWG Phosphor-Bronze, Bonded
Insulation: Polyimide

Four Wire Options

36 AWG Copper, Twisted
Insulation: Teflon

36 AWG Phosphor-Bronze, Bonded
Insulation: Polyimide

32 AWG Phosphor-Bronze, Bonded
Insulation: Polyimide

Available in lengths from 6 inches to 15 feet

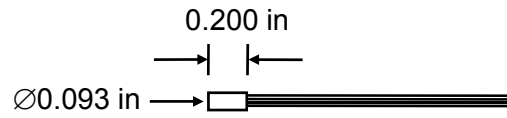
Teflon sheathing available.

Calibration Ranges

P 4.2K to 400K

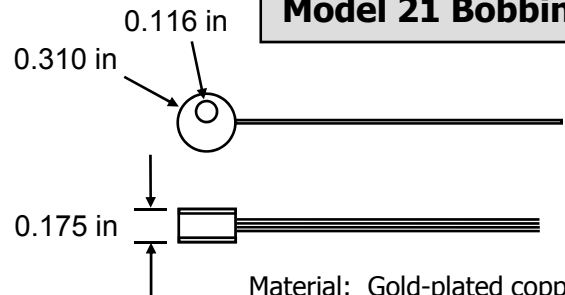
PP 1.5K to 400K

Canister Package



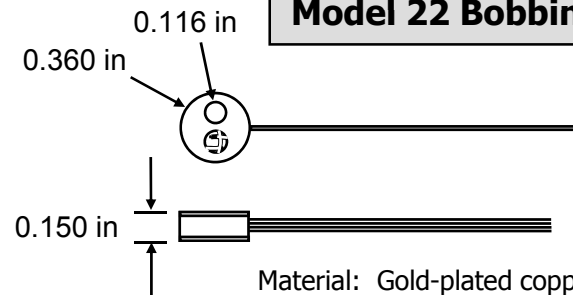
Material: Gold-plated copper,
Stycast® Epoxy

Model 21 Bobbin



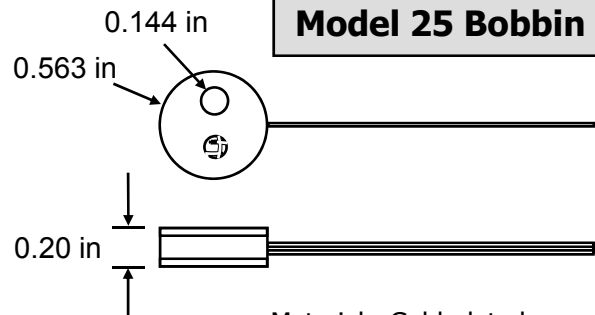
Material: Gold-plated copper,
Stycast® Epoxy

Model 22 Bobbin



Material: Gold-plated copper,
Stycast® Epoxy

Model 25 Bobbin



Material: Gold-plated copper,
Stycast® Epoxy

