

GX100, GX101 High-precision, Low-power Digital Temperature Sensor Compatible with SMBus and I²C Communications

1 Features

- Product number: **GX100, GX101**
- Temperature range: **-55°C ~ +125°C**
- Temperature accuracy: **±0.5°C (-40 °C ~ +125 °C)**
- Package form: **6-Pin SOT-23**
- Package size: **2.90 mm × 1.60 mm**
- Power supply voltage: **2.7V ~ 5.5V**
- Low quiescent current
Temperature conversion: **≤ 40μA**
Shutdown mode: **≤ 0.5μA**
- Resolution: **12bits, 0.0625 °C**
- Digital output: **compatible with SMBus and I²C interface**

2 Applications

- Power supply temperature monitoring
- laptop
- Battery management
- Thermostatic control

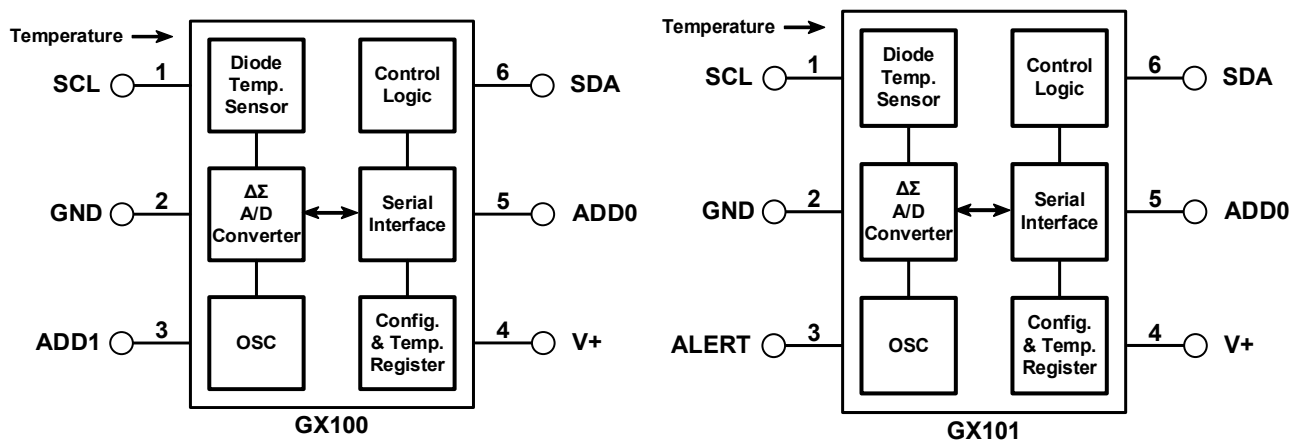
3 Description

The GX100 and GX101 are two high-precision, low-power digital temperature sensors that can replace NTC/PTC thermistors and can be used for temperature measurement in communications, computers, consumer electronics, environment, industry, and instrumentation applications. The GX100 and GX101 can provide temperature accuracy of $\leq \pm 0.5^{\circ}\text{C}$ within the normal operating range of -40°C to $+125^{\circ}\text{C}$, and have good temperature linearity.

The rated operating voltage range of the GX100 and GX101 is 2.7~5.5V, and the quiescent operating current during temperature conversion is less than 40μA. The 12-bit ADC integrated inside the chip has a resolution as low as 0.0625°C.

The GX100 and GX101 are available in the 2.9mm×1.6mm SOT-23(6) package compatible with SMBus and I²C interfaces, and have the SMBus alarm function.

Figure 1 the Diagram of the Internal Module



9 Ordering Information

Order Number	Chip Model	Package	SPQ	Note
GX100S-T&R	GX100S	SOT 23-6	3000	Tape & Reel
GX101S-T&R	GX101S	SOT 23-6	3000	Tape & Reel