
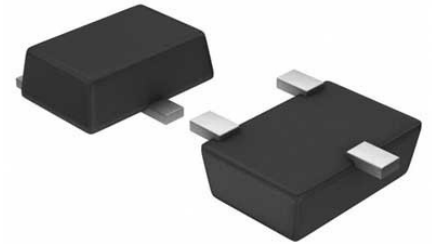


## Temp Sensor Analog Automotive 3-Pin SOT-23 T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	SOT23-3
<b>Product Type:</b>	Sensors, Transducers
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The LM60-Q1 device is a precision integrated-circuit temperature sensor that can sense a 40°C to +125°C temperature range while operating from a single 2.7-V supply. The output voltage of the device is linearly proportional to Celsius (Centigrade) temperature (6.25 mV/°C) and has a DC offset of 424 mV. The offset allows reading negative temperatures without the need for a negative supply. The nominal output voltage of the device ranges from 174 mV to 1205 mV for a 40°C to +125°C temperature range. The device is calibrated to provide accuracies of ±2°C at room temperature and ±3°C over the full 25°C to +125°C temperature range.

The linear output of the device, 424-mV offset, and factory calibration simplify external circuitry required in a single supply environment where reading negative temperatures is required. Because the quiescent current of the device is less than 110 µA, self-heating is limited to a very low 0.1°C in still air in the SOT-23 package. Shutdown capability for the device is intrinsic because its inherent low power consumption allows it to be powered directly from the output of many logic gates.

## Key Features

AEC-Q100 Qualified for Automotive Applications  
Device Temperature Grade 1: -40°C to +125°C Ambient Operating Temperature

Device HBM ESD Classification Level 2

Calibrated Linear Scale Factor of 6.25 mV/°C

Rated for Full 40°C to +125°C Range

Suitable for Remote Applications

Available in SOT-23 Packages

Key Specifications

Accuracy at 25°C: ±2°C and ±3°C (Maximum)

Accuracy for 40°C to +125°C: ±4°C (Maximum)

Accuracy for 25°C to +125°C: ±3°C (Maximum)

Temperature Slope: 6.25 mV/°C

Power-Supply Voltage Range: 2.7 V to 10 V

Current Drain at 25°C: 110 µA (Maximum)

Nonlinearity: ±0.8°C (Maximum)

Output Impedance: 800 Ω (Maximum)

## Recommended For You

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### **LMI86QDCKRQ1**

Texas Instruments, Inc

SC70-5

### **LM50CIM3**

Texas Instruments, Inc

SOT23

### **LM50BIM3/NOPB**

Texas Instruments, Inc

SOT23

### **LM74CIM-3**

Texas Instruments, Inc

SOP-8

### **LM94021BIMG/NOPB**

Texas Instruments, Inc

SC70-5

### **LMI87QDCKRQ1**

Texas Instruments, Inc

SC70-5

### **LM77CIM-3/NOPB**

Texas Instruments, Inc

SOP8

### **LM74CIMX-3/NOPB**

Texas Instruments, Inc

SOP8

### **LM57CISD-5/NOPB**

Texas Instruments, Inc

WSO-8

### **LMI01LPG**

Texas Instruments, Inc

TO-92

### **LMI01DQXT**

Texas Instruments, Inc

WSO-2

### **LMI01LPGM**

Texas Instruments, Inc

TO-92-2

**LMI01DQXR**

Texas Instruments, Inc

WS0N-2

**LMI86QDCKTQ1**

Texas Instruments, Inc

SC70-5

**LM71C1MF**

Texas Instruments, Inc

SOT23-5