

Temp Sensor Digital Serial (2-Wire, I2C, SMBus) Automotive 6-Pin SOT-23 T/R

Manufacturer:	Texas Instruments, Inc	<input type="text" value="TMP101NAQDBVRQ1 Image"/>
Package/Case:	SOT23-6	Images are for reference only
Product Type:	Sensors, Transducers	<input type="button" value="Inquiry"/>
RoHS:	RoHS Compliant/Lead free 	
Lifecycle:	Active	

General Description

The TMP100-Q1 and TMP101-Q1 devices are digital temperature sensors designed for negative temperature coefficient (NTC) and positive temperature coefficient (PTC) thermistor replacement. The devices offer a typical accuracy of $\pm 1^{\circ}\text{C}$ without requiring calibration or external component signal conditioning. Device temperature sensors are highly linear and do not require complex calculations or look-up tables to derive the temperature. The on-chip, 12-bit ADC offers resolutions down to 0.0625°C . The devices are available in 6-Pin SOT-23 packages.

The TMP100-Q1 and TMP101-Q1 devices feature SMBus, Two-Wire, and I^2C interface compatibility. The TMP100-Q1 device allows up to eight devices on one bus. The TMP101-Q1 device offers an SMBus Alert function with up to three devices per bus.

The TMP100-Q1 and TMP101-Q1 devices are designed for extended temperature measurement in a variety of communication, computer, consumer, environmental, industrial, and instrumentation applications.

The TMP100-Q1 and TMP101-Q1 devices are specified for operation over a temperature range of 55°C to 125°C .

Key Features

AEC-Q100 qualified with the following results:

Temperature grade 1: 55°C to +125°C operating temperature range

HBM ESD component classification level 2

CDM ESD component classification level C5

Functional Safety-Capable

Documentation available to aid functional safety system design

Digital output: SMBus , two-wire, and I

2

C interface compatibility

Resolution: 9 to 12 bits, user-selectable

Accuracy:

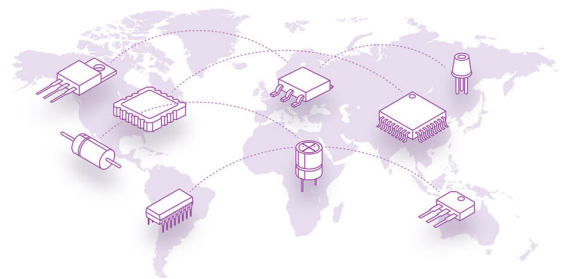
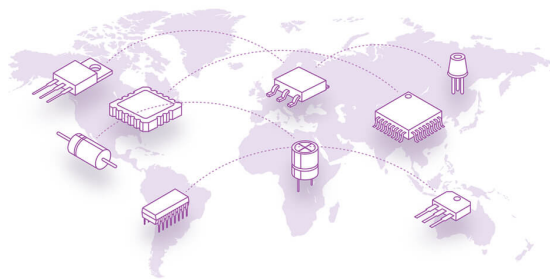
Low quiescent current: 45- μ A, 0.1- μ A standby

Wide supply range: 2.7 V to 5.5 V

TMP100-Q1 features two address pins

TMP101-Q1 features one address pin and an ALERT pin

6-pin SOT-23 package



Recommended For You

TMP451AIDQFR

Texas Instruments, Inc
WSOP8

TMP411AQDGKRQ1

Texas Instruments, Inc
MSOP8

TMP100AQDBVRQ1

Texas Instruments, Inc
SOT-23-6

TMP75AQDGKRQ1

Texas Instruments, Inc
VSSOP8

TMP112AQDRLRQ1

Texas Instruments, Inc
SOT-563

TMP102AQDRLRQ1

Texas Instruments, Inc
SOT-563

TMP422AQDCNRQ1

Texas Instruments, Inc
SOT23-8

TMP421AQDCNRQ1

Texas Instruments, Inc
SOT23-8

TMP451AQDQWRQ1

Texas Instruments, Inc
WSOP8

TMP451HQDQFRQ1

Texas Instruments, Inc
WSOP8

TMP411DQDGKRQ1

Texas Instruments, Inc
MSOP8

TMP451AQDQFRQ1

Texas Instruments, Inc
WSOP8

TMP75BQDGKRQ1

Texas Instruments, Inc
MSOP8

TMP126EDBVRQ1

Texas Instruments, Inc
SOT23-6

TMP451AIDQFT

Texas Instruments, Inc
WSOP8