

# N34TS108

## Low-Voltage Digital Temperature Sensor

### Product Overview

For complete documentation, see the data sheet.

N34TS108 is a digital-output temperature sensor with a dynamically-programmable limit window, and under- and over temperature alert functions. These features provide optimized temperature control without the need of frequent temperature readings by the controller or application processor. The N34TS108 features SMBus and two-wire interface compatibility, and allows up to four devices on one bus with the SMBus alert function. The N34TS108 is ideal for thermal management optimization in a variety of consumer, computer, and environmental applications. The device is specified over a temperature range of  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

#### Features

- Dynamically-Programmable Limit Window with Under- and Over Temperature Alerts
- Accuracy:  $\pm 0.75^{\circ}\text{C}$  (max) from  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C} \pm 1^{\circ}\text{C}$  (max) from  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Low Quiescent Current:  $6\ \mu\text{A}$  Active from  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Supply Range: 1.4 V to 3.6 V
- Resolution: 12 Bits ( $0.0625^{\circ}\text{C}$ )
- Package: 1.2-mm  $\times$  0.8-mm, 6-Ball WCSP

#### Applications

- Smartphone and Tablet Thermal Management
- Battery Management
- Thermostat Control
- Under- and Over Temperature Protection for Environmental Monitoring and HVAC

#### Benefits

- Dynamically-Programmable Limit Window with Under- and Over Temperature Alerts
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#### End Products

- IoT Smart Market Tag

Product	Pricing (\$/Unit)	Compliance	Status	Sensor Type	Data Transmission Standard	I <sub>CC</sub> Max (mA)	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	T Min (°C)	T Max (°C)	Temperature Error (°C)	Package Type
N34TS108C6ECT5G	0.736		Active	Single	I2C	3.6 $\mu$	1.4V	3.6V	-40	125	$\pm 0.75$	WLCSP 6, 1.1888x0.788x0.625
N34TS108MUET3G	0.6		Active	Single	I2C		1.4	3.6	-40	125	$\pm 0.75$	UDFN-6