MITSUMI

Temperature Sensor IC (Digital Output)

MM3286



Outline

This IC is an I2CBUS compatible digital temperature sensor IC that incorporates a temperature sensor and a sigma-delta AD converter. It offers low current consumption and an I2C BUS compatible interface, making it ideal for a wide range of applications.

It also has a built-in thermostat function to improve safety.

Applications

Flat TVsSystem temperature moniteringTablet PCs, PCsOffice automation equipmentsPC servers / network servers

Features

- 1 Low voltage operation: 3.0V to 5.5V
- (2) Low current consumption: $75\mu A$ typ.
- $\ensuremath{\textcircled{}}$) Fast update of time: 2ms typ.
- ④ Accuracy: ±2.0°C (25°C to +100°C)
- (5) Resolution: 9 bits (0.5°C)
- $\textcircled{\sc 6}$ Shutdown mode minimizing current consumption
- \oslash I²C BUS compatible interface
- $\textcircled{\sc 8}$ Up to 8 ICs can be built into a bus
- 9 Built-in thermostat function (comparator mode, latch mode)

Block Diagram



Application circuit





| Item | Specification | Unit |
|------------------------|------------------|------|
| Operation temperature | $-40 \sim +125$ | Ĉ |
| Operating voltage | $3.0\sim5.5$ | V |
| Supply current | 75 (typ.) | μA |
| Temperature accuracy | ±2.0 (-25~+100℃) | ĉ |
| Resolution | 9 (0.5℃) | bit |
| Data update time | 2 | ms |
| Start-up Reset Voltage | 2.1 | V |
| O.S. Output Saturation | 0.4 | Vmax |



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