

SST Compliant Hardware Monitor with Two Temperature Channels and Five Voltage Channels

PRODUCT FEATURES

Data Brief

General Description

The EMC1152 is a one-wire sensor that is capable of monitoring up to five voltages and two temperature zones for an Intel PC platform containing an SST host. The two temperature zones consist of an internal temperature diode and an externally connected temperature diode. In cooperation with a host device, thermal management and fan control can be performed. Communication takes place over a one-wire SST based interface. The internal 11-bit delta-sigma ADC architecture provides superb linearity, high accuracy, and excellent noise immunity.

Applications

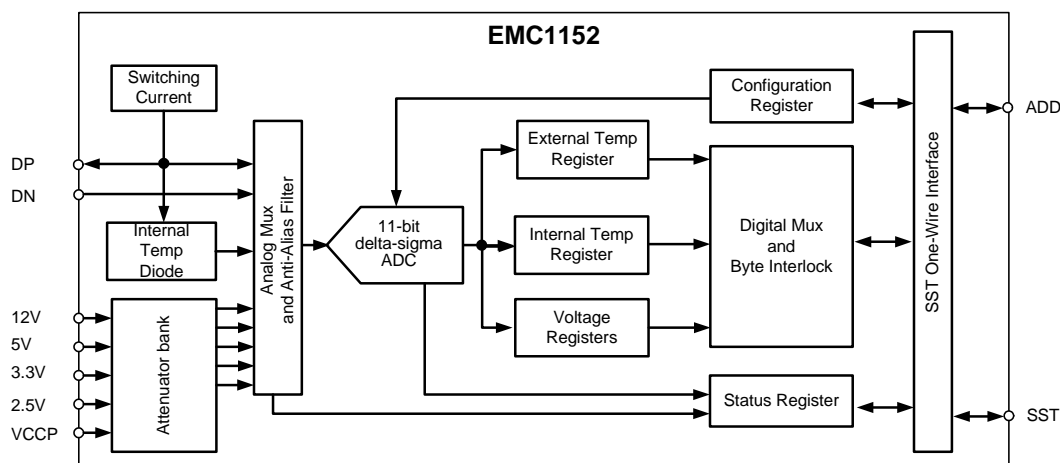
- Desktop PCs, Servers and Workstations

Features

- Single Wire Interface (SST based)
 - SST 1.0 compliant
 - Fixed Address, Discoverable Device
 - Three programmable addresses
 - Supports FCS Abort functionality not available in SST 0.9 compliant devices

- Resistance Error Correction
- Ideality Configuration
- Beta Compensation (EMC1152-1)
 - EMC1152 configured to measure 2N3904 diode
 - EMC1152-1 configured to measure CPU substrate diode
- External Temperature Monitor
 - 0.125°C resolution
 - $\pm 1^\circ\text{C}$ Accuracy (50°C to 70°C)
 - Diode Fault Reporting
- Internal Temperature Monitor
 - Range -40°C to +125°C
 - 0.125°C resolution
 - $\pm 2^\circ\text{C}$ Accuracy (40°C to 70°C)
- Voltage Monitor:
 - 12V, 5V, 3.3V, 2.5V, VCCP inputs
 - 2% Total Unadjusted Error
 - 11-bit resolution
- Supply
 - 3.0V to 3.6V

Simplified Block Diagram



ORDER NUMBERS:

PART NUMBER	FEATURES	PACKAGE
EMC1152-AIZL-TR	External Diode configured to monitor 2N3904	10 pin MSOP Lead-Free, ROHS Compliant
EMC1152-1-AIZL-TR	External Diode configured to monitor 65nm CPU	10 pin MSOP Lead-Free, ROHS Compliant



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Package Outline

Revision 2.58 (08-01-07)

PRODUCT PREVIEW

SMSC EMC1152

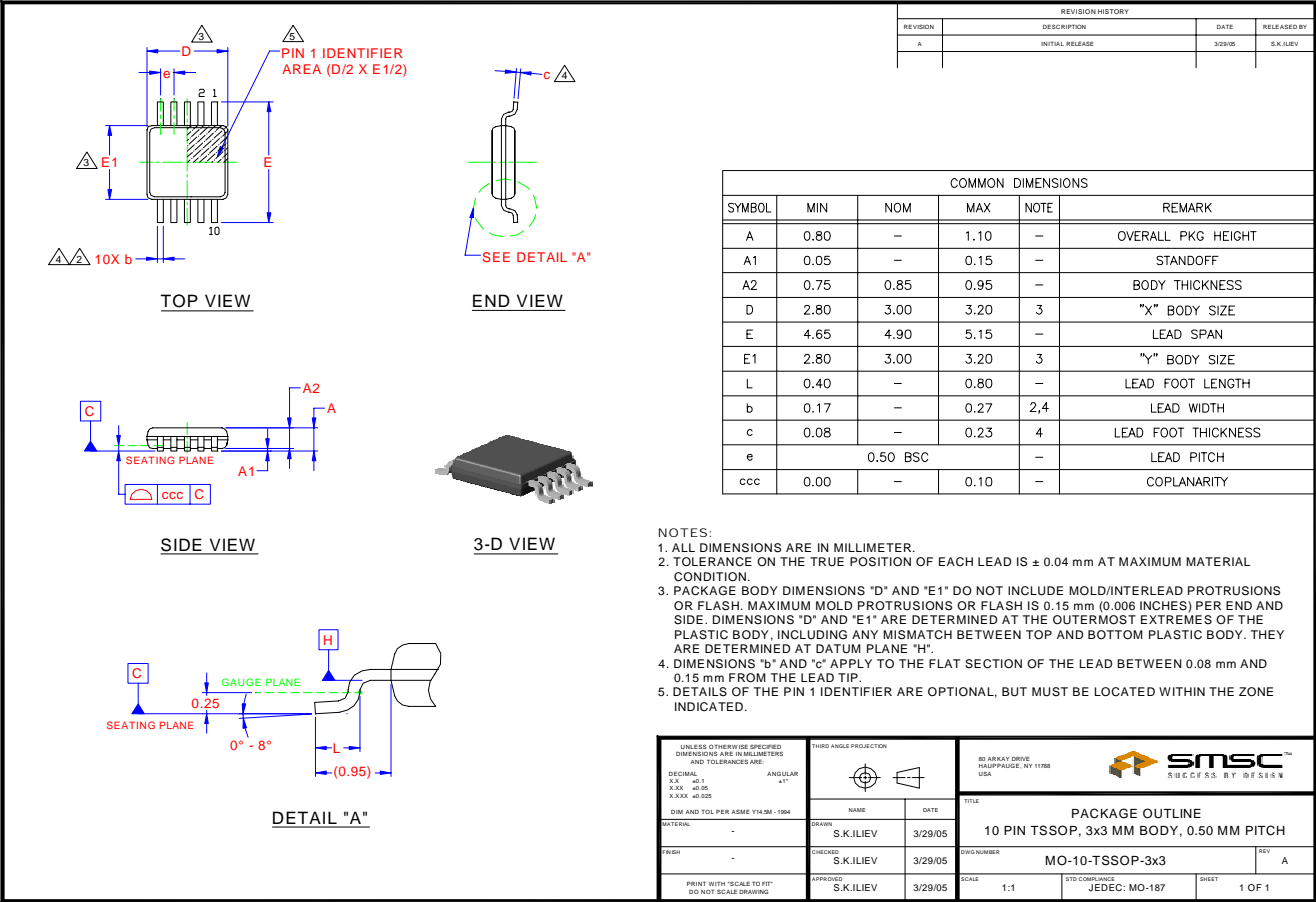


Figure 1 EMC1152 10-Pin MSOP Package Drawing