SMBus-Compatible, 8-Pin, Remote/ Local Digital Temperature Sensor

SA56004X

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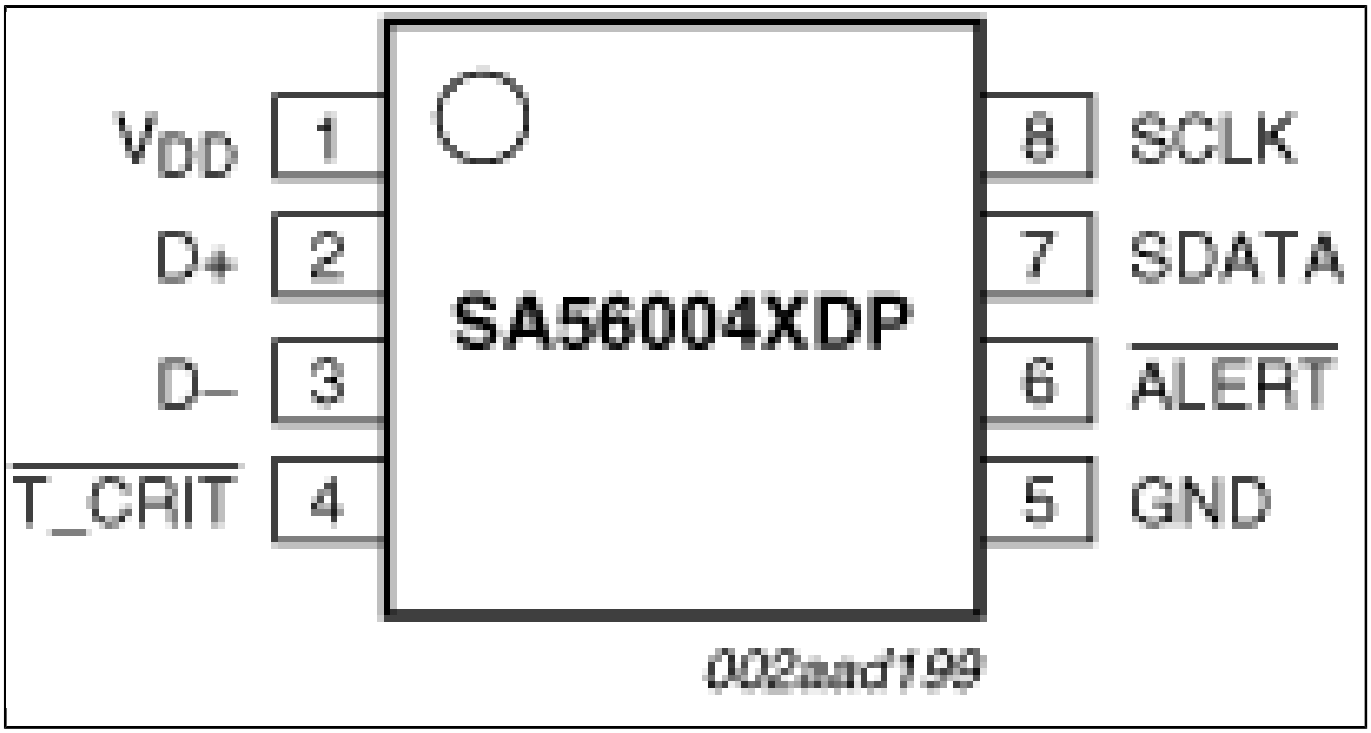
The NXP Semiconductors SA56004X is an SMBus compatible, 11-bit remote/local digital temperature sensor with over-temperature alarms. The remote channel of the SA56004X monitors a diode junction, such as a substrate PNP of a microprocessor or a diode connected transistor such as the 2N3904 (NPN) or 2N3906 (PNP). With factory trimming, remote sensor accuracy of ±1 °C is achieved.

Under-temperature and over-temperature alert thresholds can be programmed to cause the ALERT output to indicate when the on-chip or remote temperature is out of range. This output may be used as a system interrupt or SMBus alert. The T_CRIT output is activated when the on-chip or remote temperature measurement rises above the programmed T_CRIT threshold register value. This output may be used to activate a cooling fan, send a warning or trigger a system shutdown. To further enhance system reliability, the SA56004X employs an SMBus time-out protocol. The SA56004X has a advanced device architecture.

The SA56004X is available in the SO8, TSSOP8 and HVSON8 packages. SA56004X has 8 factory-programmed device address options. The SA56004X is pin-compatible with the LM86, MAX6657/8, and ADM1032.

SA56004X Block Diagram Block Diagram



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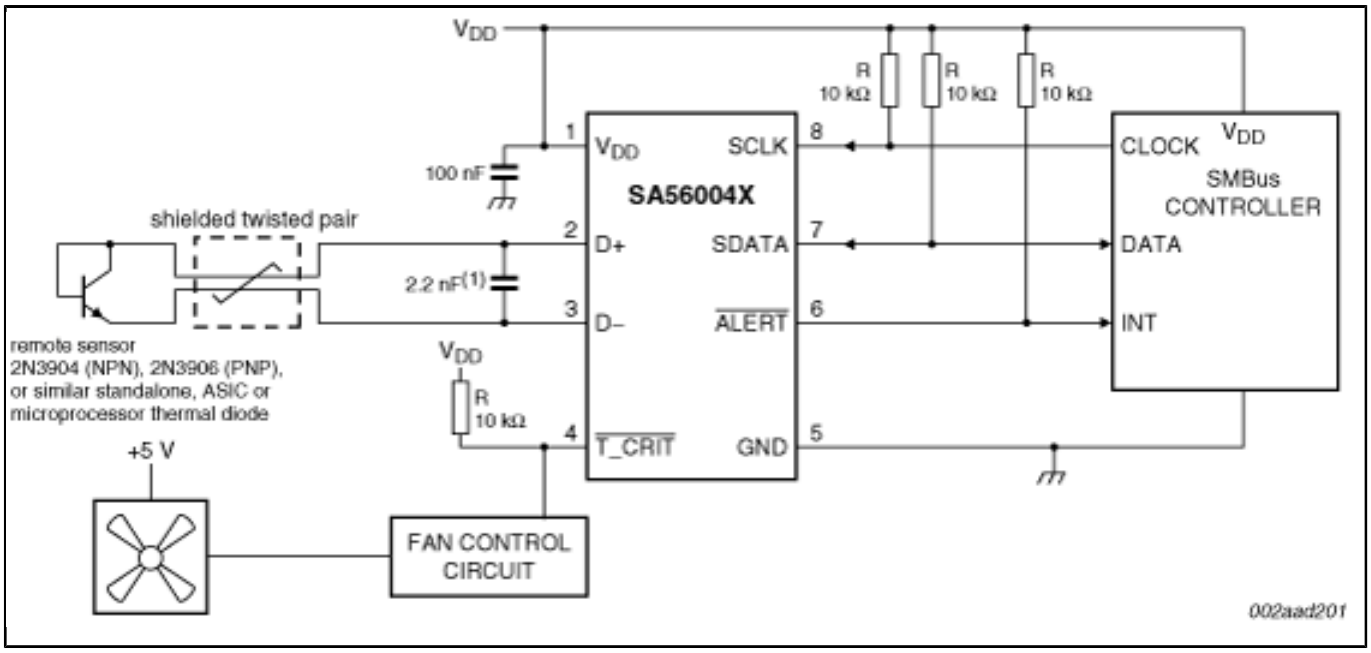

View additional information for SMBus-Compatible, 8-Pin, Remote/Local Digital Temperature Sensor.

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