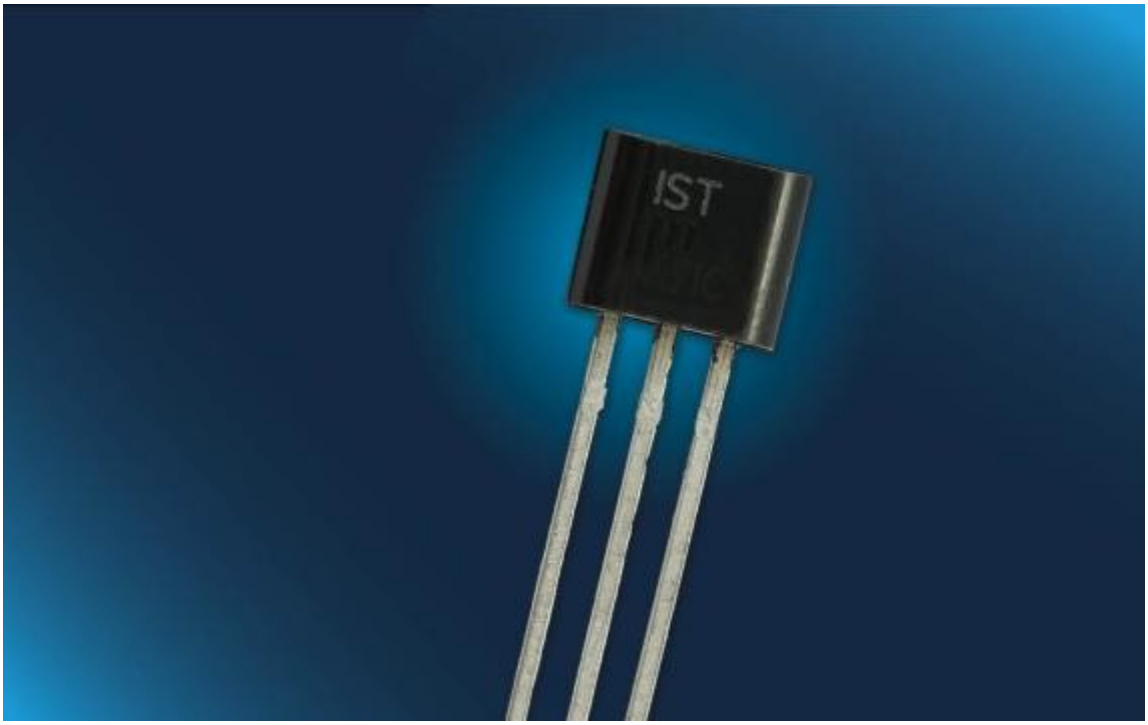
Digital Temperature Sensor IC TO92



Digital Temperature Sensor Tsic -10 ˚C to +60 ˚C

The TSic 506F/503F/501F Series of temperature sensor ICs is specifically designed as a low-power solution for temperature measurement in building automation, industrial and mobile applications.

Product Name: TSic 506F TO92
Operating temperature range: -10 °C to +60 °C (boundaries: ± 3°C)
Accuracy: ± 0.1 °C in range +5°C to +45 °C
Output signal: Digital (ZAC wire)
Resolution: 0.034 °C
Package/housing: TO-92
Supply voltage: 5V
Sample rate: 10 Hz
Bit size: 11-bit
Product Old code: 030.00045
Product code: 103490

Product details

TSic 506F/503F/501F - Accuracy of ±0.1 K in a range of 40 K

The characteristics of the TSic 506F/503F/501F sensors at a glance:

- Fully calibrated
- Custom calibration and assembly available
- Outstanding accuracy of ±0.1 K
- Available with digital, analog and ratiometric output signal
- Very low power consumption
- Calibrated accuracy range of 40 K can be shifted (default: +5 °C to +45 °C)

The TSic 506F/503F/501F Series of temperature sensor ICs is specifically designed as a low-power solution for temperature measurement in building automation, industrial and mobile applications. With a standard calibration and an accuracy of ±0.1 K in a range of 40 K (e.g. +5 °C to +45 °C), the TSic sensors are more accurate than a class F0.1 (IEC 60751) platinum sensor in the range of 40 K. The range can be shifted up or downwards to reach a high accuracy of between -5 °C to +35 °C for example.

The TSic has a high precision bandgap reference with a PTAT (proportional-to-absolute-temperature) output, a low-power and high-precision ADC and an on-chip DSP core with an EEPROM for the precisely calibrated output signal. The TSic temperature sensor is fully calibrated, meaning no further calibration effort is required by the customer. Extended long wires (> 10 m) will not influence the accuracy.

The TSic 506F/503F/501F sensors are available with digital (ZacWire, TSic 506F), analog (0 V to 1 V, TSic 501F) or ratiometric (10 % to 90 % V+, TSic 503F) output signal. The low power consumption makes it suitable for many applications.

Quality

Consistent with the well-known, high-quality standards in Switzerland, IST AG is certified according to ISO 9001:2015 (quality) and ISO 14001:2015 (environment). Appropriate processes are part of our daily work. They are regularly audited and extended parallel to the growth of our company.

> Read more

The online shop

Quantity (pieces)	Price (per piece)
10-49	CHF 12.68
50-99	CHF 10.48
100-150	CHF 9.50

Stock: **21**