



SOT 223, Housed Platinum Resistance Temperature Detector according to DIN EN 60751 Temperature range -50 °C to +150 °C

The Pt1000 PRTD in a standard SOT223 housing is characterized by its standardized signal according to DIN EN 60751 (according to IEC 751), interchangeability, high long-time stability and accuracy. It is designed for automatic mounting in electronic applications and serves e.g. for temperature compensation on PCBs. It is equipped with a cooling fin improving thermal contact to the PCB.

Nominal Resistance R0	Tolerance	Order Number
	DIN EN 60751 2009-05	Blister reel
1000 Ohm at 0 °C	F 0.6 (Class 2B)	32209116

Temperature and tolerance range

-50 °C to +150 °C (continuous operation)

Tolerance class F 0.6 (2B): -50 °C to +150 °C

Temperature coefficient

TK = 3850 ppm/K

Response time

Water current (v= 0.4m/s): t0.5 = 0.45 s

t0.9 = 1.2 s

Air stream (v= 2m/s):

t0.5 = 8.0 s

t0.9 = 26.0 s

Measuring current

1000 Ω: 0.1 to 0.3 mA

(self-heating has to be considered)

Long-term stability

RO-Drift 0.04 % after 1000h at 150 °C

Self-heating

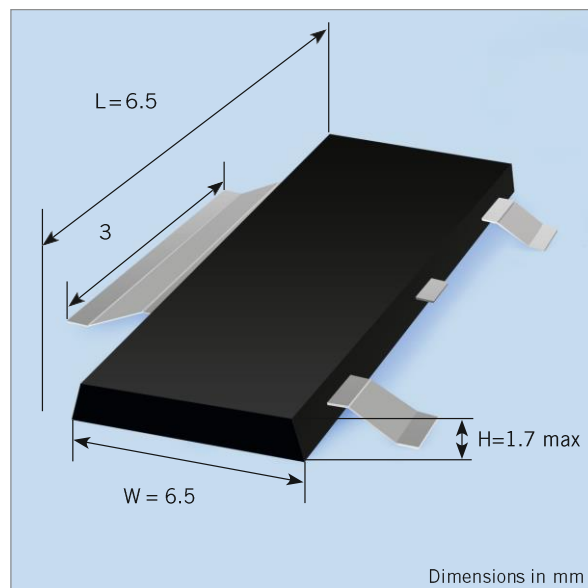
0.049 K/mW at 0 °C; mounted on PCB

0.2 K/mW at 0 °C; package only

Specific volume resistance

100 °C: $14 \times 10^{14} \Omega\text{cm}$

150 °C: $0.3 \times 10^{12} \Omega\text{cm}$



Physical data of housing

Material: duroplastic

Coefficient of thermal expansion: $12 \times 10^{-6} \Omega/^\circ\text{C}$ (below Tg)

Thermal conductivity: 1.04 W/mK

Moisture absorption: Boiling Water (48 hours) < 1.0 %



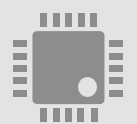
The information provided in this data sheet regarding the technical characteristics of the product describe the quality of the product, but shall not be qualified or construed as quality guarantees (Beschaffenheitsgarantie) in the meaning of sections 443 and 444 German Civil Code.

The information provided in this data sheet regarding measurement values (response time, long-term stability, vibration and shock resistance, insulation resistance and self-heating) are average values that have been obtained under laboratory conditions in tests of large numbers of the product; measurements in productive use may vary significantly depending on the specific conditions of use.

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Flammability

UL94-V0

Soldering connection

Cu alloy with Sn coating

Connection technology

Suitable for soft soldering

Packaging

„Face-up“ in blister reel

Storage life

9 months (in original packaging)

Nitrogen atmosphere recommended

Note

Other tolerances, values of resistance and wire lengths are available on request.

California Proposition 65



WARNING:

This product can expose you to chemicals including carbon black, which is known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.



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