

## Housed Platinum Resistance Temperature Detector

SOT 223

The Pt1000 PRTD in a standard SOT 223 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 R <sub>0</sub>	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number
1000 Ohm at 0°C	Class 2B	F 0,6	32 209 116

Other resistances and tolerances on request!

**Specification** DIN EN 60751  
(according to IEC 751)

**Temperature range** -50°C to +150°C  
Tolerance Class 2B: -50°C up to +150°C

**Temperature coefficient** TCR = 3850 ppm/K

**Soldering connection** Cu alloy with Sn coating

**Long-term stability** max. R<sub>0</sub>-drift 0.04% after 1000 h at 150°C

**Resistance to soldering heat** max. deviation 0.03% after 10s at 260°C

**Self heating** 0.049 K/mW at 0°C;  
mounted on PCB  
0.2 K/mW at 0°C;  
package only

**Response time** water current (v = 0.4 m/s): t<sub>0.5</sub> = 0.45s  
t<sub>0.9</sub> = 1.20s  
air stream (v = 2 m/s): t<sub>0.5</sub> = 8.0s  
t<sub>0.9</sub> = 26.0s

**Measuring current** 1000Ω: 0.1 to 0.3mA  
(self heating has to be considered)

**Flammability** UL 94-V0

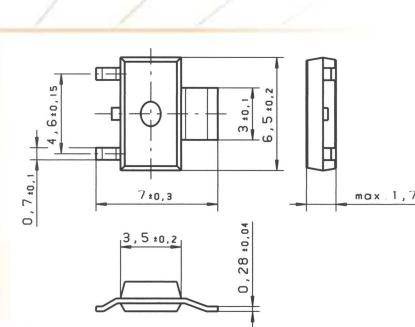
**Specific volume resistance** 100°C: 14 x 10<sup>14</sup> Ωcm  
150°C: 0.3 x 10<sup>12</sup> Ωcm

**Physical data of housing** material: duroplastic  
coefficient of thermal expansion: 12 x 10<sup>-6</sup> 1/°C (below T<sub>g</sub>)  
thermal conductivity: 1.04 W/mK  
moisture absorption: Boiling Water (48 h) < 1.0 %

**Storing information** ≤ 1 year (in dry environments) for best solderability

**Packaging** „Face-up“ in blister reel

**Note** Other tolerances and values of resistance are available on request.



We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

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