

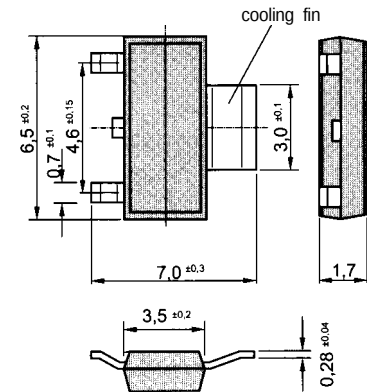
Housed Platinum Resistance Temperature Detector

SOT 223

The Pt1000 PRTD in a standard SOT 223 housing is characterised by its standardised 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_0	Tolerance	Order Number Blister Reel
1000 Ohm at 0 °C	± 0,5 %	32 209 115

other resistances and tolerances on request



Specification:	: DIN EN 60751 (according to IEC 751)		
Temperature range	: - 50 °C to + 150 °C		
Temperature coefficient	: $T_c = 3850 \text{ ppm/K}$		
Soldering connection	: copper alloy with Sn / Pb coating		
Longterm stability	: max. R_0 -drift 0,04% after 1000 h at 150 °C max. R_0 -drift 0,04% after 1000 h at - 55 °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 0,1 K/mW at 0 °C; package only		
Response time	: water current ($v = 0,4 \text{ m/s}$): $t_{0,5} = 0,42 \text{ s}$; $t_{0,9} = 1,12 \text{ s}$ air stream ($v = 1 \text{ m/s}$): $t_{0,5} = 8,1 \text{ s}$; $t_{0,9} = 26,1 \text{ s}$		
Measuring current	: 0,1 mA; max. 1,0 mA		
Flammability	: UL 94-VO		
Specific volume resistance	: 20 °C: $5 \times 10^{16} \Omega \text{ cm}$ 150 °C: $5 \times 10^{13} \Omega \text{ cm}$		
Physical data of housing	: material: duroplastic coefficient of thermal expansion: $13 \times 10^{-6} 1/^\circ\text{C}$ thermal conductivity: 0,65 W/mK moisture absorption: 0,5% (P.C.T.: 121 °C, 24 h)		
Storing information	: ≤ 1 year (in dry environments) for best solderability		

11 / 1998