

Housed Platinum Resistance Temperature Detector

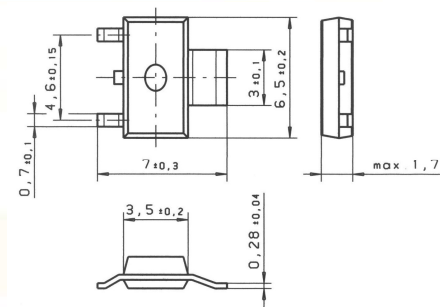
SOT 223

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 R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
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 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 0.2 K/mW at 0°C; package only	
Response time	water current (v = 0.4 m/s):	t _{0,5} = 0.45s t _{0,9} = 1.20s
	air stream (v = 2 m/s):	t _{0,5} = 8.0s t _{0,9} = 26.0s
Measuring current	1000Ω: 0.1 to 0.3mA (self heating has to be considered)	
Flammability	UL 94-V0	
Specific volume resistance	20°C: 5 x 10 ¹⁶ Ωcm 150°C: 5 x 10 ¹³ Ωcm	
Physical data of housing	material: duroplastic coefficient of thermal expansion: 13 x 10 ⁻⁶ 1/°C thermal conductivity: 0.65 W/mK moisture absorption: 0.5% (P.C.T.: 121°C, 24h)	
Storing information	≤ 1 year (in dry environments) for best solderability	
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.

Heraeus Sensor Technology GmbH, Reinhard- Heraeus- Ring 23, 63801 Kleinostheim, Germany
Phone: +49 (0) 6181/35-8098, Fax: +49 (0)6181/35-8101, E-Mail: info.HSND@Heraeus.com Web: www.heraeus-sensor-technology.com