

Platinum Resistance Temperature Detector

PCB 2225/ 2240 (0805)

This platinum temperature sensor on a printed circuit board has been specially designed for use in calorimetry. When designing these sensors, the stringent requirements of this sector with regard to precision, long-term stability, cost minimisation as well as the option for fully automatic further processing were of prime concern.

The temperature sensor in an SMD model forms the measurement active element on a PCB. The chip is connected with the terminal faces via meandering circuit board conductors in order to reduce heat dissipation and to prevent corruption of the measuring results. As a cable set sensor, it is suitable for a wide range of applications within a temperature range of 0°C to 150°C.

Nominal Resistance R_0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Ordner No.	Dimensions in mm		FC Type
				L +2.2 -0.2	B -0.2	
100	Class B	F 0.3	30 201 075	22	2,5	0805
500			30 201 073	22	2,5	0805
1000			30 201 063	22	2,5	0805
100			30 201 071	22	4,0	0805
500			30 201 069	22	4,0	0805
1000			30 201 067	22	4,0	0805

Specification

DIN EN 60751

Tolerance classes

Class B

Temperature range

0°C to 150°C

Temperature coefficient

TC = 3850 ppm/K

Long-term stability

≤ 0.1 K after 1000 h at 150°C (energized with
Pt 100: 1.0mA; Pt 500: 0.7mA; Pt 1000: 0.3mA)

Measuring current

100Ω: 0.3 to 1.0mA
500Ω: 0.1 to 0.7mA
1000Ω: 0.1 to 0.3mA
(self heating has to be considered)

Self-heating

0.15 K/mW in ice water

Track Resistance

Meander: 0.06Ω

Temperature change resistance

≤ 0.1 K after 1000 change 0°C/150°C in air

Contact

Cu connection pad with chem. Sn surface

Soldering

- 1) Chip is soldered lead free
- 2) Connection pads are ready for lead free soldering

Ambient conditions

Use unprotected only in dry environments

Response time

water (v= 0.4m/s): $t_{0,5} = 0.05s$ $t_{0,9} = 0.10s$
air (v=2m/s): $t_{0,5} = 1.5s$ $t_{0,9} = 5.0s$

Packaging

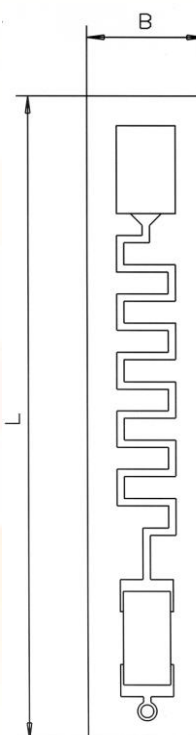
Supplied in plastic container

Storage life

12 months

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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