SMD 0805 FC, Pt Temperature Sensor according to DIN EN IEC 60751

Temperature range -50 °C to +170 °C

- Pt chip in standard SMD flipchip format
- High accuracy and interchangeability of a platinum sensor
- Automated mounting via standard pick-and-place tools
- Blister reel packaging
- Optional wafer frame packaging for large volumes

SMD-FC 0805 Pt RTD elements are designed for automated assembly on printed circuit boards. Application areas include HVAC, automobiles, e-mobility, and medical and industrial equipment.
In principle, the products can also be used in automotive applications,in this case YAGEO Nexensos will check upon the request of the customer, whether additional requirements can be met (e.g. IMDS, PPAP).

Nominal Resistance R_0 [Ω]	Tolerance Class	Order Number	Packaging
Pt100	F 0.3 (B) F 0.6 (2B)	32208594 32208595	Blister reel Blister reel
Pt1000	F 0.3 (B) F 0.6 (2B)	32208569 32208570	Blister reel Blister reel

Temperature Range of Tolerance Class

Validity of Class F 0.3 (B) -50 °C to +170 °C
Validity of Class F 0.6 (2B) -50 °C to +170 °C
By coordinating materials, design and connection technology applications are possible up to +250 °C

Temperature Coefficient

TCR = 3850 ppm/K

Response Time

Water (v = 0.4 m/s): t0.5 = 0.1 s
t0.9 = 0.25 s
Air (v = 2 m/s): t0.5 = 2.5 s
t0.9 = 8 s

Measuring Current

Pt100 Ω: 0.3 to 1 mA
Pt1000 Ω: 0.1 to 0.3 mA
(self-heating has to be considered)

Long-Term Stability

The drift of the resistance value at 0 °C after a storage for 1000 hours in air at the declared upper temperature limit is not more than the tolerance value of the declared tolerance class according DIN EN IEC 60751.
Typical drift of R(0 °C) is 0.06 % after 1000 hours at +170 °C.

Self-Heating

0.8 K/mW at 0 °C

Contact

AgPt metallizing in thick film technology
YAGEO Nexensos GmbH, Germany
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Dimensions and Tolerances in mm

L1: 2.1 ±0.2
W: 1.35 ±0.2
H: 0.41 ±0.055
L2: 0.46 ±0.15

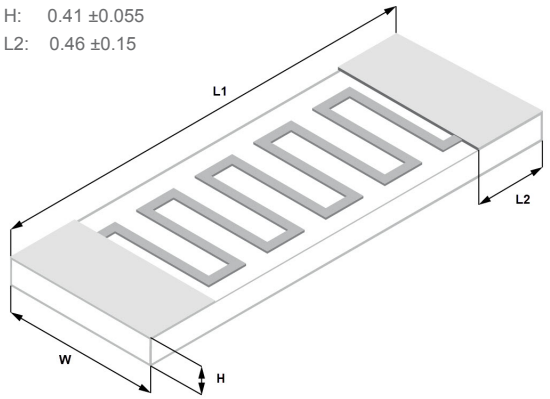

Image for illustration purposes only
Color, shape and forming of metallization may vary

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Connection Technology

Reflow soldering or wave soldering, e.g. double wave soldering ≤ 8 s /235 °C.
Also, can be mounted using SMD insertion machines with Ag conductive adhesive. When mounting PCB circuits, the expansion relationship of the sensor and the substrate material must be taken into account

Packaging

Blister reel
"Face-down" 4000 pcs/ reel
Alternative packaging forms on request

Storage Life

At least 24 months (after production), when stored in original VCI bags and under dry and clean conditions.
Storage in Nitrogen atmosphere further reduces the risk for corrosion and can increase storage life beyond the given shelf-life.

Note

Other tolerances, values of resistance are available on request

RoHS compliant

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