



SMD 0805 + 1206

Platinum and Nickel

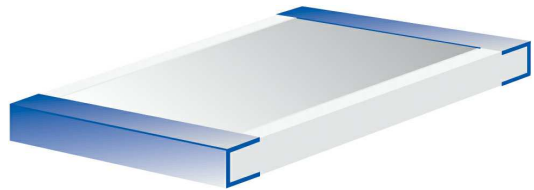
Thin-Film Chip Sensor

Product

To meet the market requirements for increasingly more efficient and economical manufacturing processes, we have developed the SMD 1206 series. A platinum or nickel temperature sensor which is designed for use in markets with a high degree of automation in their production line. This thin-film sensor combines the excellent characteristics of platinum or nickel sensors such as accuracy, long-term stability and reproducibility with the advantages of large-scale production and an optimal price/performance ratio.

Advantages

- Optimised for pick-and-place machines
- Cost-effective assembling
- Easy handling
- Platinum or Nickel thin film elements
- Lead-free (acc. RoHS)



Technical Data

Nominal resistance:	100Ω, 500Ω or 1000Ω
Temperature range:	-50 °C to +150 °C (1P, 2P) ; -50 °C to +250 °C (3P, 4P)
Classes:	Pt: DIN class A ; DIN class B ; 2x DIN class B Ni: DIN, ½ DIN (IST cl. A) DIN 43760: ± 400mK (0 °C); ± 7mK/K (>0 °C); ± 28mK/K (<0 °C)
Tolerance classes:	DIN class A: -50 °C to 150 °C
(ref. to Pt)	DIN class B: -200 °C to 250 °C
Temperature coefficient:	Pt: TCR = 3850ppm/K ; Ni: TCR = 6180ppm/K
Dependence of Resistivity:	DIN 60751 (Platinum) ; former DIN 43760 (Nickel 6180ppm/K) other resistivities on request
Soldering connection:	Contacts: 1P = Contacts tin coated (62Sn/36Pb/2Ag), LMP lead contained 2P = Contacts tin coated (96.5Sn/3Ag/0.5Cu), LMP lead free, RoHS conform 3P = Contacts tin coated (5Sn/93.5Pb/1.5Ag), HMP, RoHS conform 4P* = Contacts gold plated, solderable film *there is no ensurance for DIN class A, due to the changed resistance value after soldering. *bondable contacts without bumps available on request.
Solderability:	235 °C ≤ 8s (DIN IEC 68 2-20, Ta Meth 1)
Resistance to soldering heat:	260 °C 10x (DIN IEC 68 2-20, Ta Meth. 1A)



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Long-term stability:	Pt: max. Drift = 0.04% after 1000h at 130°C Ni: max. Drift = 0.1% after 1000 h at 130°C	
Response time:	Water (0.4m/s): $T_{0.63} = 0.25s$ (1206) Air (1m/s): $T_{0.63} = 5.0s$ (1206) The response time refers to the chip, unspoilt	$T_{0.63} = 0.2s$ (0805) $T_{0.63} = 4.0s$ (0805)
Measuring current:	0.5mA (100Ω) ; 0.4mA (500Ω) ; 0.3mA (1000Ω)	
Self heating:	Water [mW/°C]: 40 (1206, 0805) Air [mW/°C]: 4 (1206, 0805)	
Dimensions:	Pt: 0805 (2.0 x 1.2mm) ; 1206 (3.2 x 1.6mm) Ni: 1206 (3.2 x 1.6mm)	
	- Other Nominal resistances and tolerances on request - Option for packaging: taped on reel	



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