

SMD – Product Series

Temperature Range: **-50°C...+150**

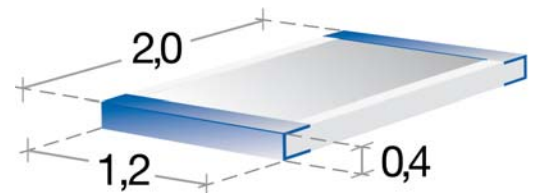
Nickel temperature sensor elements in SMD constructions
Soldering junction (reflow solderable)

Technical Data

Specification:	DIN 43760
Temperature range:	-50°C to +150°C
Temperature Coefficient:	TCR = 6180 ppm/K (ND series)
Classes:	Class A -50°C to +150°C Class B -50°C to +150°C
Contact connection:	Contacts around the sides: 1P = Contacts tin-coated (62Sn/36Pb/2Ag), LMP lead-contained 2P = Contacts tin-coated (96.5Sn/3Ag/0.5Cu), LMP lead-free, RoHs compliant - The soldering process might lead to changed resistance values, therefore the original DIN class can not be guaranteed. - 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 10s (DIN IEC 68 2-20, Ta Meth. 1A)
Note:	Other TCRs, ohm values on request

SMD 0805

Chip Dimensions, LxW:	2.0 x 1.2 mm	
Nominal Resistance at 0°C (ohm) :	100/500/1000	
Self Heating, (mK):	Water (v= 0 m/s)	$\Delta T_w = 2.6$ at 0°C
	Air (v= 0 m/s)	$\Delta T_a = 25$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.10$ $T_{0.63} = 0.12$ $T_{0.9} = 0.33$
	Air (v= 1 m/s)	$T_{0.5} = 2.5$ $T_{0.63} = 3$ $T_{0.9} = 8$
Measuring Current:	100Ω: 1 mA (max. 5 mA) 500Ω: 0.5 mA (max. 3 mA) 1000Ω: 0.3 mA (max. 2 mA)	



INNOVATIVE SENSOR TECHNOLOGY

SMD – Product Series

Temperature Range: $-50^{\circ}\text{C} \dots +150$

SMD 1206

Dimensions, LxW:	3.0 x 1.6	
Nominal Resistance at 0°C (ohm):	100/500/1000	
Self Heating (mK):	Water (v= 0 m/s)	$\Delta T_w = 1.8$ at 0°C
	Air (v= 0 m/s)	$\Delta T_a = 14.3$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.15$ $T_{0.63} = 0.25$ $T_{0.9} = 0.45$
	Air (v= 1 m/s)	$T_{0.5} = 3.5$ $T_{0.63} = 4.2$ $T_{0.9} = 10$
Measuring Current:	100Ω: 1 mA (max. 5 mA) 500Ω: 0.5 mA (max. 3 mA) 1000Ω: 0.3 mA (max. 2 mA)	



Order Example:

N	D	1K0.	0805.	2P.	B
1	2	3	4	5	6



1. Material Identification = Nickel temperature sensor
2. Characteristic Curve = 6180 ppm/K
2. Resistance Value in ohm = 1000Ω / 0°C
3. Chip Dimension = 2.0 x 1.2 mm
4. Contact Connection = Tin-coated contacts, LMP, lead-free
5. Tolerance Class = DIN 43760 Class B



INNOVATIVE SENSOR TECHNOLOGY