



Platinum Temperature Sensors

SMD – Product Series

Temperature Range: –50°C...+150/250°C

**Platinum temperature sensor elements in SMD construction
Soldering junction (reflow solderable)**

Technical Data

Specification: DIN EN 60751

Temperature range: -50°C to +150°C (2P), -50°C to +250°C (3P, 4P)

Temperature Coefficient: TCR = 3850 ppm/K

Classes:

F 0.15 (Class A)	-50°C to +150/ 250°C
F 0.3 (Class B)	-50°C to +150/ 250°C
F 0.6 (Class C)	-50°C to +150/ 250°C

Contact connection: Contacts around the sides:
2P = Contacts tin-coated (96.5Sn/3Ag/0.5Cu), LMP lead free, reflow soldering
3P = Contacts tin-coated (5Sn/93.5Pb/1.5Ag), HMP, reflow soldering
4P = Gold Contacts, solderable layer
The precision class is dependent on the soldering process

Solderability: 235°C ≤ 8s (DIN IEC 68 T2-20, Ta Meth. 1)

Resistance to soldering heat: 260°C 10s (DIN IEC 68 T2-20, Ta Meth. 1A)

Long-term stability: Max. Drift = 0.04% after 1000h at 130°C



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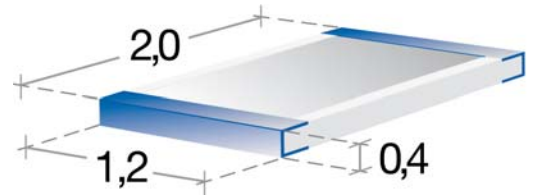
IST AG, Industriestrasse 2, CH-9630 Wattwil, Switzerland, Phone (+)41 71 987 73 73, Fax (+)41 71 987 73 77
e-mail info@ist-ag.com, www.ist-ag.com

SMD – Product Series

Temperature Range: $-50^{\circ}\text{C} \dots +150/250^{\circ}\text{C}$

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 (mA):	100Ω: 1	
	500Ω: 0.5	
	1000Ω: 0.3	



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)	$\Delta T_a = 14$ 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 (mA):	100Ω: 1	
	500Ω: 0.5	
	1000Ω: 0.3	



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Order Example:

P	1K0.	0805.	2P.	B
1	2	3	4	5

1. *Material Identification = Platinum temperature sensor*
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 EN 60751 F 0.3 (former Class B)*



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IST AG, Industriestrasse 2, CH-9630 Wattwil, Switzerland, Phone (+)41 71 987 73 73, Fax (+)41 71 987 73 77
e-mail info@ist-ag.com, www.ist-ag.com