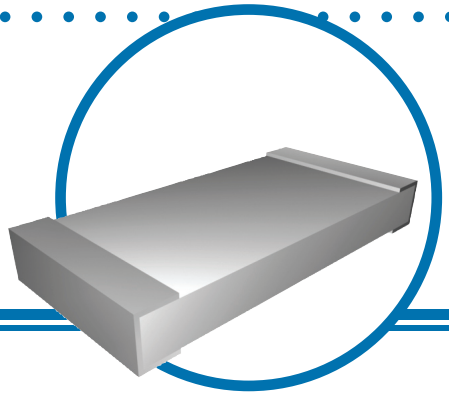
Platinum Temperature Sensor

TT electronics
IRC Advanced Film Division

RTD Series

- High stability Platinum based sensor
- High resolution, accuracy and interchangeability
- Compatible with automatic placement equipment
- Wide temperature range - Very fast response time
- Surface mount package available with SnPb and Pb-free terminations



Electrical Data

	P1206	P0805	P0603
Self Heating	0.13°C/mW	0.13°C/mW	0.14°C/mW
Available Resistances	100Ω, 1.0KΩ	100Ω	100Ω
Resistance Tolerances	±0.5%, ±1%, ±2%, ±5%		
Operating Temperature Range	-55°C to +150°C		
Temperature Coefficient	+3850 ppm/°C		
Insulation Resistance	10MΩ minimum at 25°C		
Recommended Measuring Current	≤1mA		
Long term Stability (10,000 hours at 125°C)	<0.05%		
Termination	60/40 SnPb or 100% Sn		

* Temperature coefficient in accordance with IEC751

The temperature sensor is a conventional thin film platinum RTD in a surface mount package designed for temperature sensing, over-temperature protection and temperature compensation in any application where printed circuit board temperature sensing is desired.

Performance Data

	Settling Response Time					
	P1206		P0805		P0603	
Rapidly Stirred Oil	0.2s ($t_{0.5}$)	0.6s ($t_{0.9}$)	0.1s ($t_{0.5}$)	0.4s ($t_{0.9}$)	0.1s ($t_{0.5}$)	0.4s ($t_{0.9}$)
Air @ 1m/s	1.8s ($t_{0.5}$)	6s ($t_{0.9}$)	1.2s ($t_{0.5}$)	4.2s ($t_{0.9}$)	1.1s ($t_{0.5}$)	3.7s ($t_{0.9}$)

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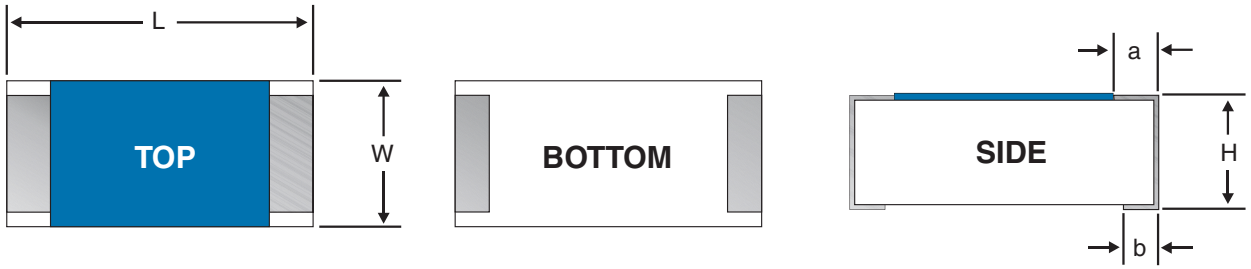
Physical Data



	L	W	H	a	b
P0603	0.063”±0.004”	0.031”±0.004”	0.020”±0.004”	0.008”±0.004”	0.008”±0.004”
P0805	0.081”±0.005”	0.050”±0.005”	0.020”±0.006”	0.016”±0.008”	0.016”±0.008”
P1206	0.126”±0.006”	0.063”±0.005”	0.024”±0.004”	0.016”±0.008”	0.016”±0.008”

Ordering Data

RTD - P1206 - 43 - 1001 - D

Model

P1206 = 1206 chip with standard SnPb terminations
P1206LF = 1206 chip with Pb-Free terminations
P0805 = 0805 chip with standard SnPb terminations
P0805LF = 0805 chip with Pb-Free terminations
P0603 = 0603 chip with standard SnPb terminations
P0603LF = 0603 chip with Pb-Free terminations

Temperature Coefficient

42 = +3850 ppm/°C ±100 ppm/°C
43 = +3850 ppm/°C ± 50 ppm/°C

Resistance Code

Standard 4 Digit Resistance Code
Ex: 1000 = 100Ω; 1001 = 1000Ω

Tolerance Code

D= ±0.5%
F= ±1.0%
G=±2.0%
J=±5.0%

For additional information or to discuss your specific requirements, please contact our Applications Team using the contact details below.