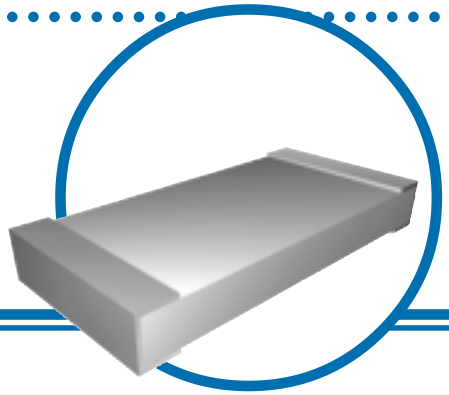
Platinum Temperature Sensor

TT electronics
IRC Advanced Film Division

RTD Series

- Small surface mount package
- High stability Platinum based sensor
- High resolution, accuracy and interchangeability
- Compatible with automatic placement equipment
- Wide temperature range - Very fast response time



Electrical Data

Resistance Range	100W, 1.0KW
Resistance Tolerances	±0.5%, ±1%, ±2%, ±5%
Operating Temperature Range	-55° to +150°C
Temperature Coefficient	+3750ppm/°C +3850ppm/°C *
Insulation Resistance	10MW min at 25°C
Recommended Measuring Current	≤1mA
Long Term Stability (1000 hours at 125°C)	<0.05%
Termination	SnPb

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.

Self Heating	**P1206**	**P0805**	**P0603**
	0.130 °C/mW	0.133 °C/mW	0.120 °C/mW

*** Specification according to IEC 751**

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 ($t_{0.9}$)

General Note
IRC reserves the right to make changes in product specification without notice or liability.
All information is subject to IRC's own data and is considered accurate at time of going to print.

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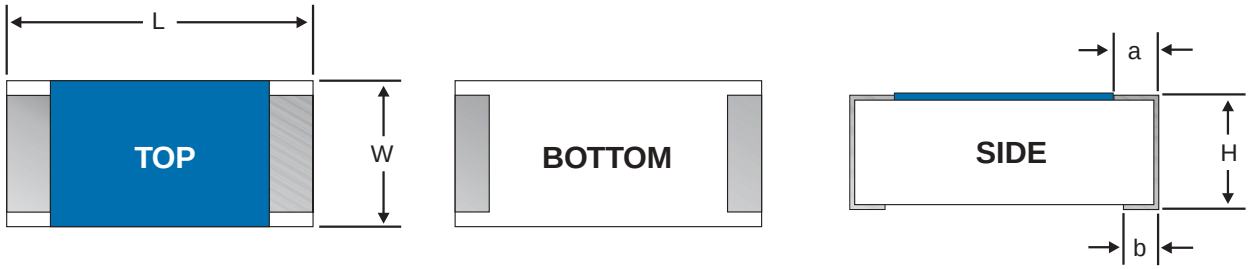
Physical Data



	L	W	H	a	b
P 0603	0.063"±.004"	0.031"±.004"	0.020"±.004"	0.008"±.004"	0.008"±.004"
P 0805	0.081"±.005"	0.050"±.005"	0.020"±.006"	0.016"±.008"	0.016"±.008"
P 1206	0.126"±.006"	0.063"±.005"	0.024"±.004"	0.016"±.008"	0.016"±.008"

Ordering Data

RTD - P1206 - 40 - 1001 - D

Model

P1206 = 1206 chip sensor
P0805 = 0805 chip sensor
P0603 = 0603 chip sensor

Tolerance Code

D = ±0.5%
F = ±1.0%
G = ±2.0%
J = ±5.0%

Temperature Coefficient

40 = +3750ppm/°C ±100ppm/°C
42 = +3850ppm/°C ±100ppm/°C
43 = +3850ppm/°C ± 50ppm/°C

Resistance Code

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

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