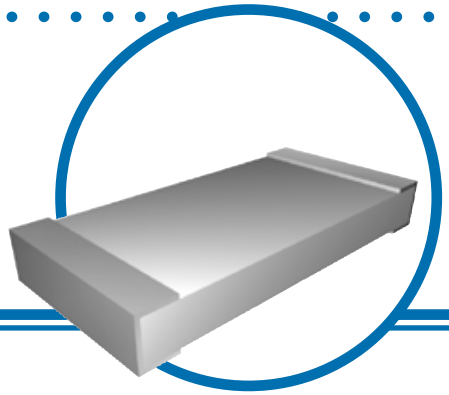
Platinum Temperature Sensor

TT electronics
Welwyn Components

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

	P0603	P0805	P1206
Self Heating	0.14°C/mW	0.13°C/mW	0.13°C/mW
Available Resistances	100Ω	100Ω	100Ω, 1.0KΩ
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		

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.

* Temperature coefficient in accordance with IEC751

Performance Data

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

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

© Welwyn Components Limited Bedlington, Northumberland NE22 7AA, UK
Telephone: +44 (0) 1670 822181 • Facsimile: +44 (0) 1670 829465 • Email: info@welwyn-tt.com • Website: www.welwyn-tt.com

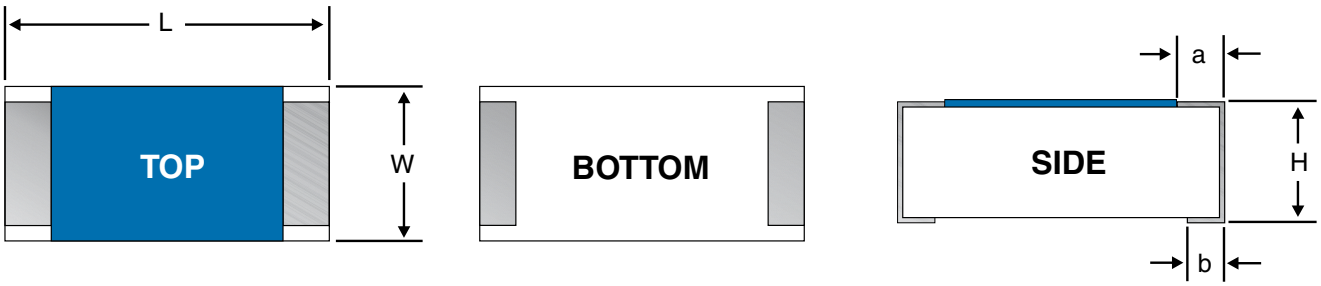
Welwyn
A subsidiary of
TT electronics plc

CHC Series Issue June 2006

Platinum Temperature Sensor

TT electronics
Welwyn Components

Physical Data



	L	W	H	a	b
P0603	1.60 ± 0.1	0.79 ± 0.1	0.51 ± 0.1	0.20 ± 0.1	0.20 ± 0.1
P0805	2.06 ± 0.13	1.27 ± 0.13	0.51 ± 0.15	0.41 ± 0.2	0.41 ± 0.2
P1206	3.20 ± 0.13	1.60 ± 0.13	0.61 ± 0.1	0.41 ± 0.2	0.41 ± 0.2

Ordering Data

P1206 - 43 - 100R - D

Model

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

Value (use IEC62 code)

Tolerance (use IEC62 code)
D= ±0.5%
F= ±1.0%
G=±2.0%
J=±5.0%

Finish
Blank = Pb Free
PB = SnPb

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