## **Platinum Temperature Sensor Chip**



# OBSOLETE

### **PTS Series**

#### **Features**

- High stability thin film Platinum sensor
- High resolution, accuracy and interchangeability
- Compatible with automatic placement equipment
- Wide temperature range very fast response time
- Surface mount package with Pb-free terminations

All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

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.

## Electrical Data

	P0603	P0805	P1206			
Self Heating at 0°C	0.8°C/mW	0.8°C/mW	0.4°C/mW			
Available Resistances at 0°C	1000Ω	100Ω, 1000Ω				
Temperature Tolerances	Class B = $\pm 0.3^{\circ}$ C @ 0°C (R <sub>0</sub> $\pm 0.12\%$ ) Class 2B = $\pm 0.6^{\circ}$ C @ 0°C (R <sub>0</sub> $\pm 0.24\%$ )					
Operating Temperature Range	-55°C to +130°C (-55°C to +150°C if board CTE is 6-8ppm/°C)					
Temperature Coefficient	+3850 ppm/°C per IEC751					
Insulation Resistance	100M $\Omega$ minimum at 20°C					
Recommended Measuring Current To Minimize Self Heating Error	100Ω ≤1mA 1000Ω ≤0.3mA					
Long Term Stability (130°C)	<0.06% at 250hrs <0.06% at 1000hrs					
Termination	100% Sn over Ni Barrier (minimum 5µm Ni thickness)					

\* Temperature coefficient in accordance with IEC751

## Performance Data

Settling Response Time									
	P0603		P0805		P1206				
Rapidly Stirred Oil	<0.2s	<0.6s	<0.1s	<0.4s	<0.1s	<0.4s			
	(t <sub>0.5</sub> )	(t <sub>0.9</sub> )	(t <sub>0.5</sub> )	(t <sub>0.9</sub> )	(t <sub>0.5</sub> )	(t <sub>0.9</sub> )			
Air @ 1m/s	<3.5s	<10s	<2.5s	<8s	<2.5s	<8s			
	(t <sub>0.5</sub> )	(t <sub>0.9</sub> )	(t <sub>0.5</sub> )	(t <sub>0.9</sub> )	(t <sub>0.5</sub> )	(t <sub>0.9</sub> )			

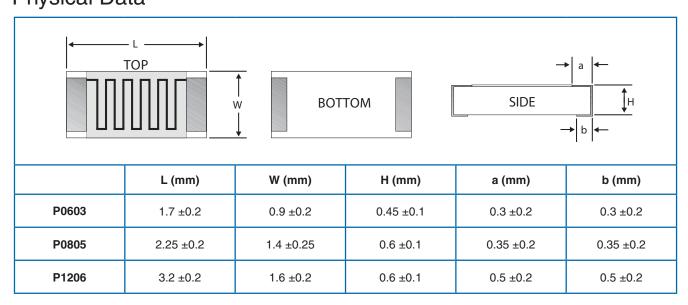
#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print. BI Technologies IRC Welwyn

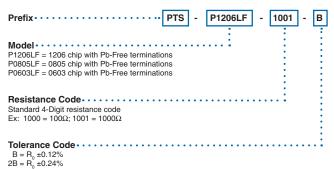


## **PTS Series**

## Physical Data



## Ordering Data



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

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