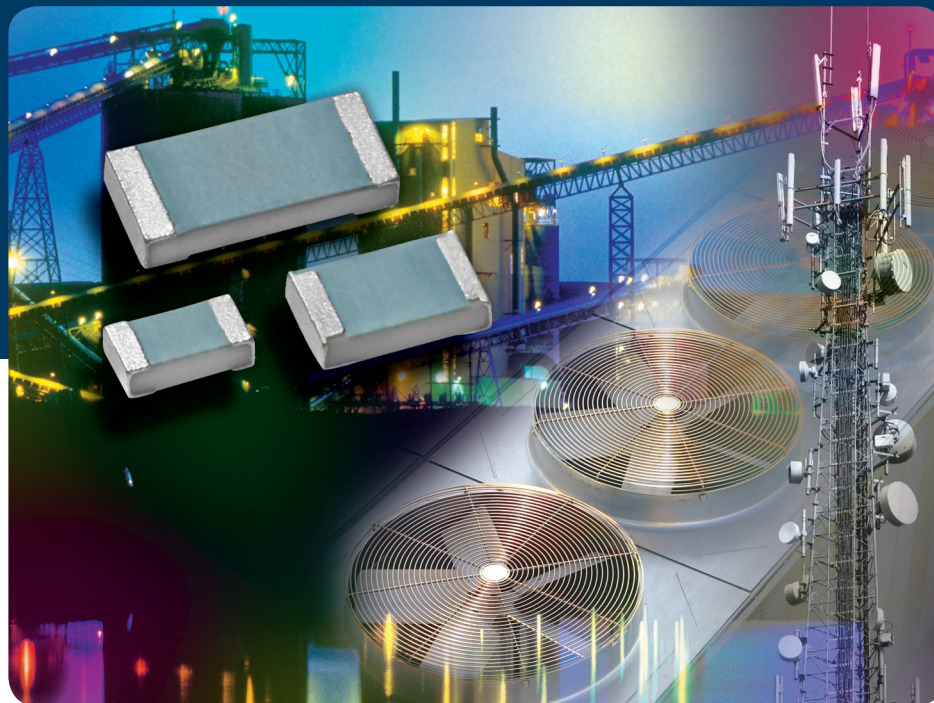




SENSORS

PTS Series: PTS 1206, PTS 0805, PTS 0603



Platinum SMD Flat Chip Temperature Sensor

KEY BENEFITS

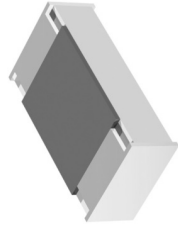
- Wide temperature range ($-55\text{ }^{\circ}\text{C}$ up to $+155\text{ }^{\circ}\text{C}$)
- Linear temperature characteristic ($\text{TC} = +3850\text{ ppm/K}$)
- Short reaction time ($t_{0.9} \leq 5\text{ s}$ in air)
- Tolerance classes B and 2B
- Standard ohmic values: $100\text{ }\Omega$, $500\text{ }\Omega$ and $1\text{ k}\Omega$
- Outstanding stability of temperature characteristic ($< \pm 0.04\%$)
- Product tested in accordance with IEC 60751 and IEC 60068

APPLICATIONS

- Automotive
- Industrial
- Telecommunications
- White goods
- Medical
- Process and automation technologies
- HVAC



Platinum SMD Flat Chip Temperature Sensor



FEATURES

- Specification according to IEC 60751
- Advanced thin film technology
- Short reaction times down to $t_{0.9} \leq 2$ s (in air)
- Outstanding stability of temperature characteristic
- Standard SMD sizes
- Green product, supports lead (Pb)-free soldering

APPLICATIONS

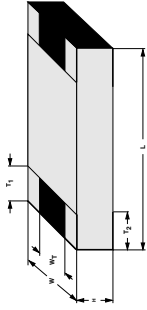
- Temperature measurement in
- Automotive electronics
 - Aviation electronics
 - Industrial electronics

PTS SMD Flat Chip Temperature sensors are the perfect choice for temperature control of electronics operating under varying environmental conditions. The highly controlled platinum thin film manufacturing process guarantees an outstanding stability of temperature characteristics which ensures reliable operation even under harsh conditions. Typical applications include automotive, aviation and industrial electronics.

TECHNICAL SPECIFICATIONS			
DESCRIPTION	PTS 0603	PTS 0805	PTS 1206
Resistance values R_0 at 0 °C	100 Ω	100 Ω , 500 Ω	100 Ω , 500 Ω , 1000 Ω
Temperature coefficient (0 °C ... + 100 °C)		+ 3850 ppm/K	
Tolerance classes		B, 2B	
Temperature range		- 55 °C to + 155 °C	
Long term stability $\Delta R/R_0$; R_0 change after 1000 h at + 155 °C		< ± 0.04 %	
Insulation resistance		> 10 M Ω	
Measurement current I_{max} (DC)	100 Ω	0.1 mA to 1.0 mA	0.1 mA to 1.0 mA
	500 Ω	0.1 mA to 0.25 mA	0.1 mA to 0.25 mA
	1000 Ω	-	0.1 mA to 0.25 mA
Self-heating ⁽¹⁾	still air ($v = 0$ m/s)	≤ 0.9 K/mW	≤ 0.7 K/mW
	flowing water ($v = 0.4$ m/s)	$t_{0.9} \leq 0.2$ s	$t_{0.9} \leq 0.3$ s
Thermal response time ⁽¹⁾		$t_{0.9} \leq 0.2$ s	$t_{0.9} \leq 0.4$ s
	flowing air ($v = 3.0$ m/s)	$t_{0.5} \leq 1.0$ s	$t_{0.5} \leq 2.0$ s
		$t_{0.9} \leq 2.0$ s	$t_{0.9} \leq 5.0$ s

Note:
⁽¹⁾ Valid for sensor element only.

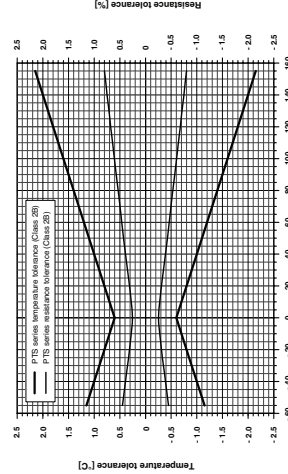
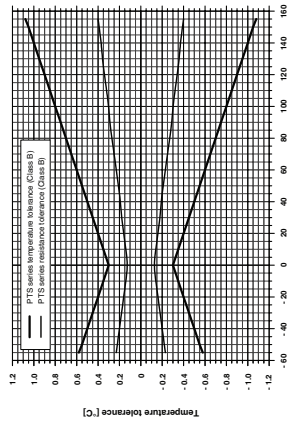
DIMENSIONS



DIMENSIONS - PTS sensor types, mass and relevant physical dimensions						
TYPE	H (mm)	L (mm)	W (mm)	T ₁ (mm)	T ₂ (mm)	MASS (mg)
PTS 0603	0.45 ± 0.1/-0.05	1.55 ± 0.05	0.85 ± 0.1	> 75 % of W	0.3 ± 0.15/-0.2	1.9
PTS 0805	0.45 ± 0.1/-0.05	2.0 ± 0.1	1.25 ± 0.15	> 75 % of W	0.4 ± 0.1/-0.2	4.6
PTS 1206	0.55 ± 0.1	3.2 ± 0.1/-0.2	1.6 ± 0.15	> 75 % of W	0.4 ± 0.1/-0.2	9.2

PART NUMBER AND PRODUCT DESCRIPTION (1)													
PART NUMBER (C): PTS0603B100P0V000													
P	T	S	D	S	O	3	O	1	B	1	O	R	O
TYPE		SIZE CODE		TOLERANCE CLASS		TOLERANCE VALUE		RESISTANCE VALUE		PACKAGING (2)		SPECIAL	
PTS - Platinum Sensor SMD		0603		B		100Ω - 1000Ω		100Ω - 1000Ω		P1		00 - standard	
		0805		B		100Ω - 1000Ω		100Ω - 1000Ω		P1		00 - standard	
		1206		B		100Ω - 1000Ω		100Ω - 1000Ω		P1		00 - standard	
PRODUCT DESCRIPTION (C): PTS 0603-B PW 100R													
PTS		0603		B		PW		100R					
PTS - Platinum Sensor SMD		SIZE CODE		TOLERANCE CLASS		PACKAGING (2)		RESISTANCE VALUE					
		0603		B		P1		100Ω - 1000Ω					
		1206		B		P1		100Ω - 1000Ω					

Notes:
(1) The first two characters of the PART NUMBER define the PRODUCT DESCRIPTION.
(2) The first two characters of the PART NUMBER define the PACKAGING.
(3) Please refer to table PACKAGING for the most detailed information on the packaging.
(4) The document is the Product Description is used to reference the possibility of error in order handling.



Revision 10-Sep-07

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