

# SMD 0805, PTC Thermistors for Over-Temperature Protection


**FEATURES**

- Well-defined protection temperature levels
- Very fast reaction time
- Accurate resistance for ease of circuit design
- Excellent long term behavior
- Small size and rugged
- UL approved according standard UL1434 (file: E148885)
- PTC thermistor with lead (Pb)-free terminations
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance at 25 °C	235 to 705	Ω
Nominal working temperature (T <sub>n</sub> )	70 to 140	°C
Maximum voltage	25	V
Dissipation factor	~ 3.5	mW/K
Operating temperature range <sup>(1)</sup>	-40 to 155	°C
Weight	~ 0.015	g

**Note**

<sup>(1)</sup> Max operating temperature range is T<sub>n</sub> + 15 °C, indicated value is for T<sub>n</sub> = 140 °C.

NOMINAL WORKING TEMPERATURE AND ORDERING INFORMATION	
SAP ORDERING NUMBER	NOMINAL WORKING TEMPERATURE
<b>TAPE AND REEL</b>	T <sub>n</sub> (°C)
PTCSS12T071DTE	70
PTCSS12T081DTE	80
PTCSS12T091DTE	90
PTCSS12T101DTE	100
PTCSS12T111DTE	110
PTCSS12T121DTE	120
PTCSS12T131DTE	130
PTCSS12T141DTE	140

**APPLICATIONS**

Over-temperature protection and control in:

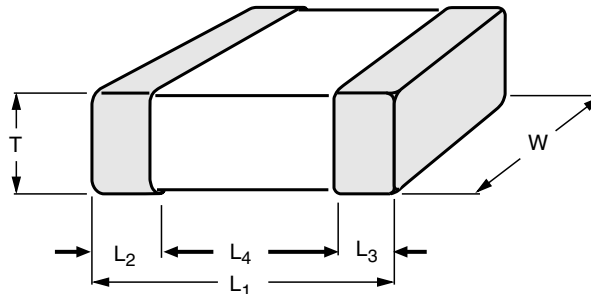
- Industrial electronics
- SMPS
- Electronic data processing
- Motor protection
- LED-drivers and control
- Power inverters

**DESCRIPTION**

These PTC sensing thermistors consist of a medium resistivity doped barium titanate ceramic beam, glass coated and have tin plated nickel barrier over silver electrodes compatible with wave or reflow soldering technology.

**PACKAGING**

PTC thermistors are available in paper tape on reel with an SPQ of 4000 pieces.

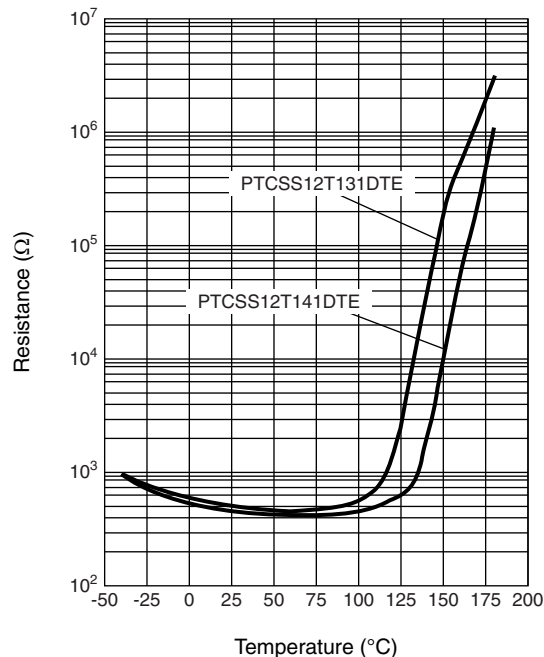
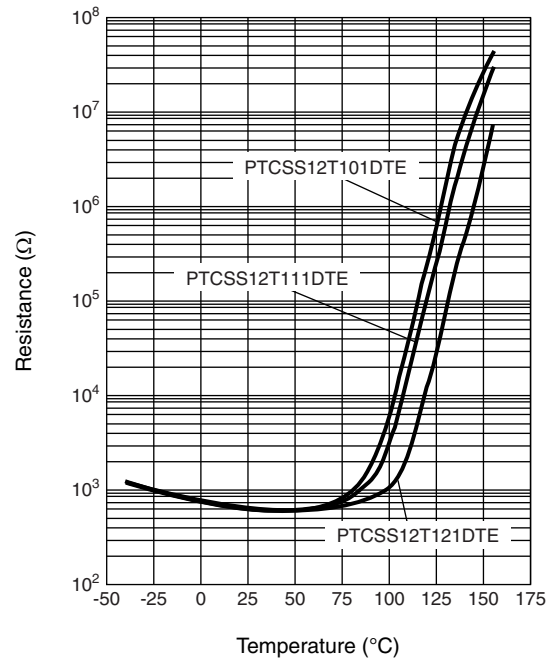
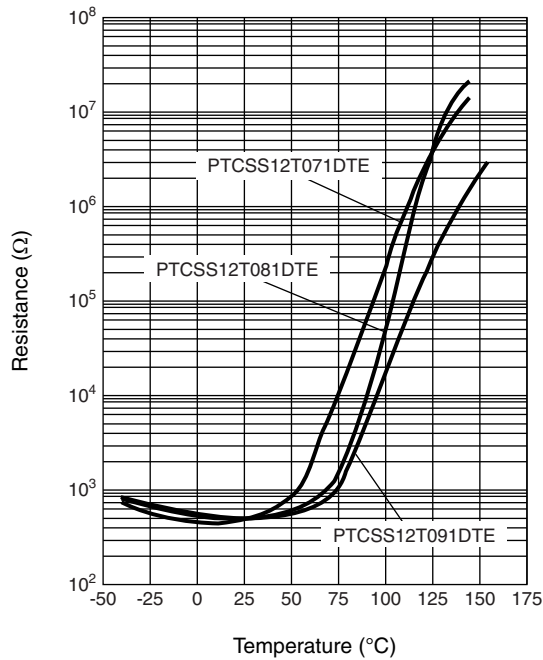
**COMPONENT OUTLINE DIMENSIONS (in mm)**


L <sub>1</sub>	W	T	L <sub>2</sub> and L <sub>3</sub> MIN.
2.00 ± 0.2	1.25 ± 0.2	0.90 ± 0.15	0.4 ± 0.25



ELECTRICAL CHARACTERISTICS	
PARAMETER	VALUES
Resistance at 25 °C	470 Ω ± 50 %
Maximum resistance at -40 °C	2500 Ω
Maximum resistance at (T <sub>n</sub> - 5) °C	4700 Ω
Minimum resistance at (T <sub>n</sub> + 5) °C	4700 Ω
Minimum resistance at (T <sub>n</sub> + 15) °C	15 000 Ω
Maximum voltage	25 V (AC or DC)

### TYPICAL RESISTANCE/TEMPERATURE CHARACTERISTIC





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