

## PTC Thermistors for Heating Application



### FEATURES

- Ag-metalization suitable for clamping
- Self-regulating surface temperature at voltages from 90 V<sub>AC</sub> up to 265 V<sub>AC</sub>
- Self-protecting against over-heating due to PTC effect
- 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 value at 25 °C    | 1200       | Ω    |
| Tolerance on R <sub>25</sub> | ± 35       | %    |
| Maximum voltage (RMS or DC)  | 265        | V    |
| Maximum inrush current       | 1          | A    |
| Switching temperature        | 50 to 150  | °C   |
| Operating temperature range  | -40 to 85  |      |
| Storage temperature          | -40 to 155 |      |

### DESCRIPTION

These directly heated thermistors are made from doped BaTiO<sub>3</sub> ceramic material with a large positive temperature coefficient in a defined temperature range. The silver metalized surfaces will stabilize at a specific temperature less dependent on applied voltage or thermal loading.

### MOUNTING

Can be mounted by force clamping, single side loaded or dual sided. Soldering on the surfaces is not recommended.

### APPLICATIONS

- Thermal actuators and valves
- Warming plates
- Vaporizers
- Heaters

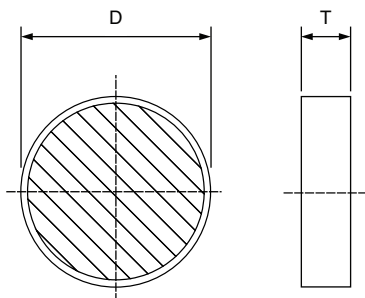
### ELECTRICAL DATA AND ORDERING INFORMATION

| R <sub>25</sub><br>(Ω) | T <sub>switch</sub><br>(°C) | T <sub>surf</sub> <sup>(1)</sup> at 230 V <sub>AC</sub><br>(°C) | ORDERING PART NUMBERS |
|------------------------|-----------------------------|-----------------------------------------------------------------|-----------------------|
| 1200                   | 50                          | 100                                                             | PTCHP12S050HYE        |
| 1200                   | 90                          | 125                                                             | PTCHP12S090HYE        |
| 1200                   | 110                         | 140                                                             | PTCHP12S110HYE        |
| 1200                   | 130                         | 160                                                             | PTCHP12S130HYE        |
| 1200                   | 150                         | 180                                                             | PTCHP12S150HYE        |

#### Note

<sup>(1)</sup> Measured in a low thermal load set-up with the ceramic clamped between a 4 mm diameter stainless steel surface temperature probe on one side in the center of the metalized surface and 4 mm spring loaded round contact at the other side

### DIMENSIONS in millimeters



| D          | T         |
|------------|-----------|
| 11.8 ± 0.2 | 2.0 ± 0.2 |



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