

## 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

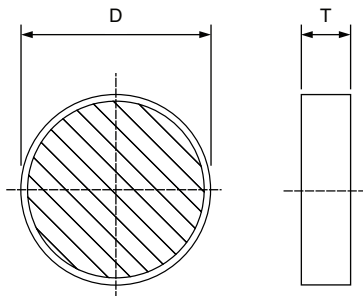
- Thermal actuators and valves
- Warming plates
- Vaporizers
- Heaters

ELECTRICAL DATA AND ORDERING INFORMATION			
R <sub>25</sub> (Ω)	T <sub>switch</sub> (°C)	T <sub>surf</sub> <sup>(1)</sup> at 230 V <sub>AC</sub> (°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 metallized 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



## **Disclaimer**

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.