

## H 540 S, High-Temperature Platinum Heater

Temperature range -25 °C to +800 °C, short-term to +850 °C

The Heraeus H540 S is a platinum thin film heater which combines excellent long-term stability with a wide temperature application range from -25 °C up to +800 °C. This feature makes it best suited to heat liquids, gases and solids with high precision, short reaction time and full control.

Nominal Resistance $R_0$	Tolerance	Order Number	Packaging
12 Ohm at 0 °C	+ / - 0.5 Ohm at 0 °C	50 840 80	Slide blister

### Temperature and tolerance range

Characteristic based on DIN EN 60751

-25 °C to +800 °C (temporary use to +850 °C possible)

### Temperature coefficient

TCR = 3850 ppm/K (nominal value)

### Design

Pt-thin film on  $Al_2O_3$  – Ceramic substrate covered with glass ceramic layer and connection wires

### Long-term stability

Max.  $R_0$ -Drift + / - 0.5 Ohm after each:

- 1,000 hours at 700 °C, 3 W
- 10,000 cycles 40 s on/off (room temperature to 700 °C)

### Heating current

Max. 1000 mA

### Heating voltage

Max. 24 V (consider temperature-dependent resistance)

### Maximum temperature

800 °C

### Peak load

1 hour at 850 °C

### Heating time

≥ 12 sec. from 25 °C to 700 °C

Test conditions:

Not installed in still air at room temperature

### Leads

Pt-wire,  $\varnothing$  0.25 mm, 6 mm

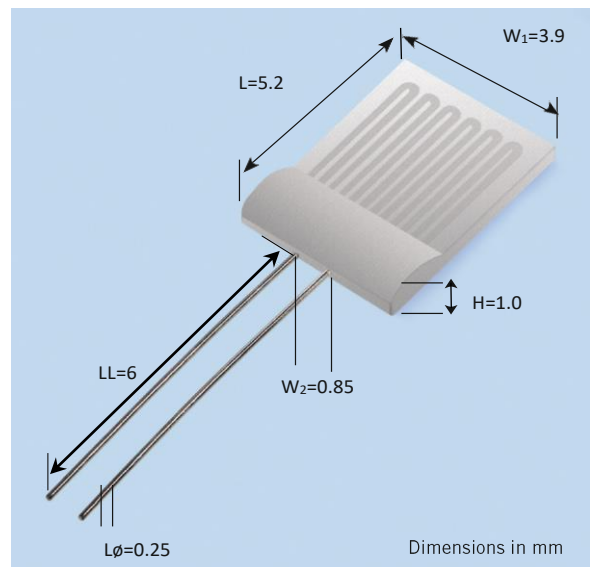


Image for illustration purposes only

### Packaging

Alternative packaging forms on request.

### Environmental capability

Comply RoHS and REACH

### Note

For application in liquids an appropriate housing must be equipped. In the case of using the temperature dependent heater resistance for monitoring, steering or control, an individual heater calibration is recommended in order to ensure accuracy.

Other tolerances, values of resistance and wire lengths are available on request.

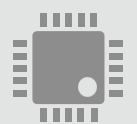


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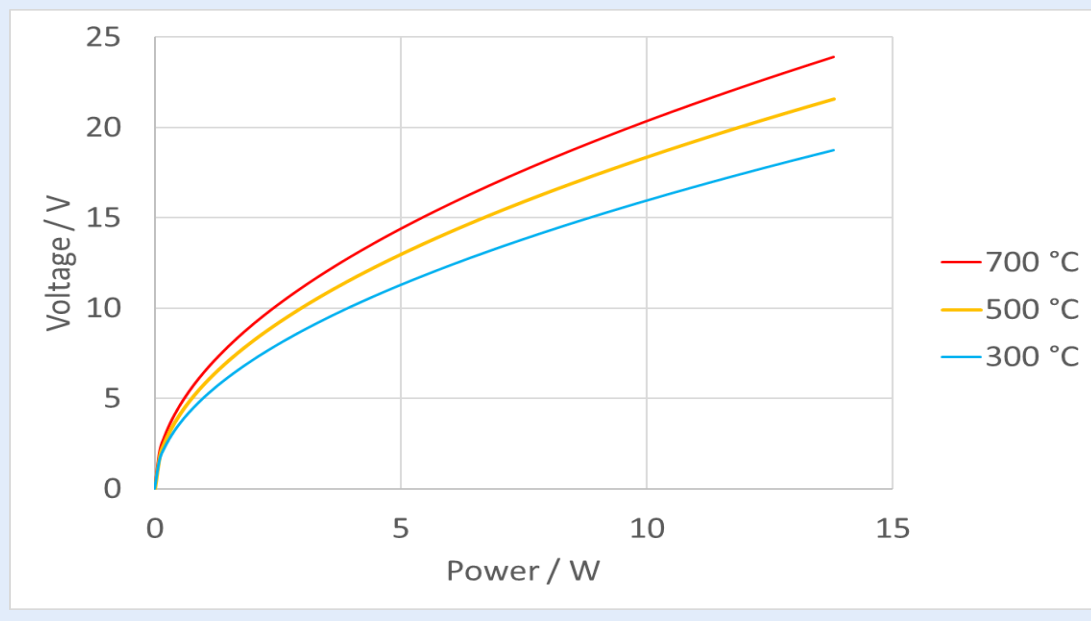
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### Connection technology

Suitable for welding and brazing

Dependence of the operating voltage on the power dissipation at different temperatures (typical values)



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