



TI VS TEMPERATURE OF PTM6000

April 6, 2023

Honeywell

DESCRIPTION

Background

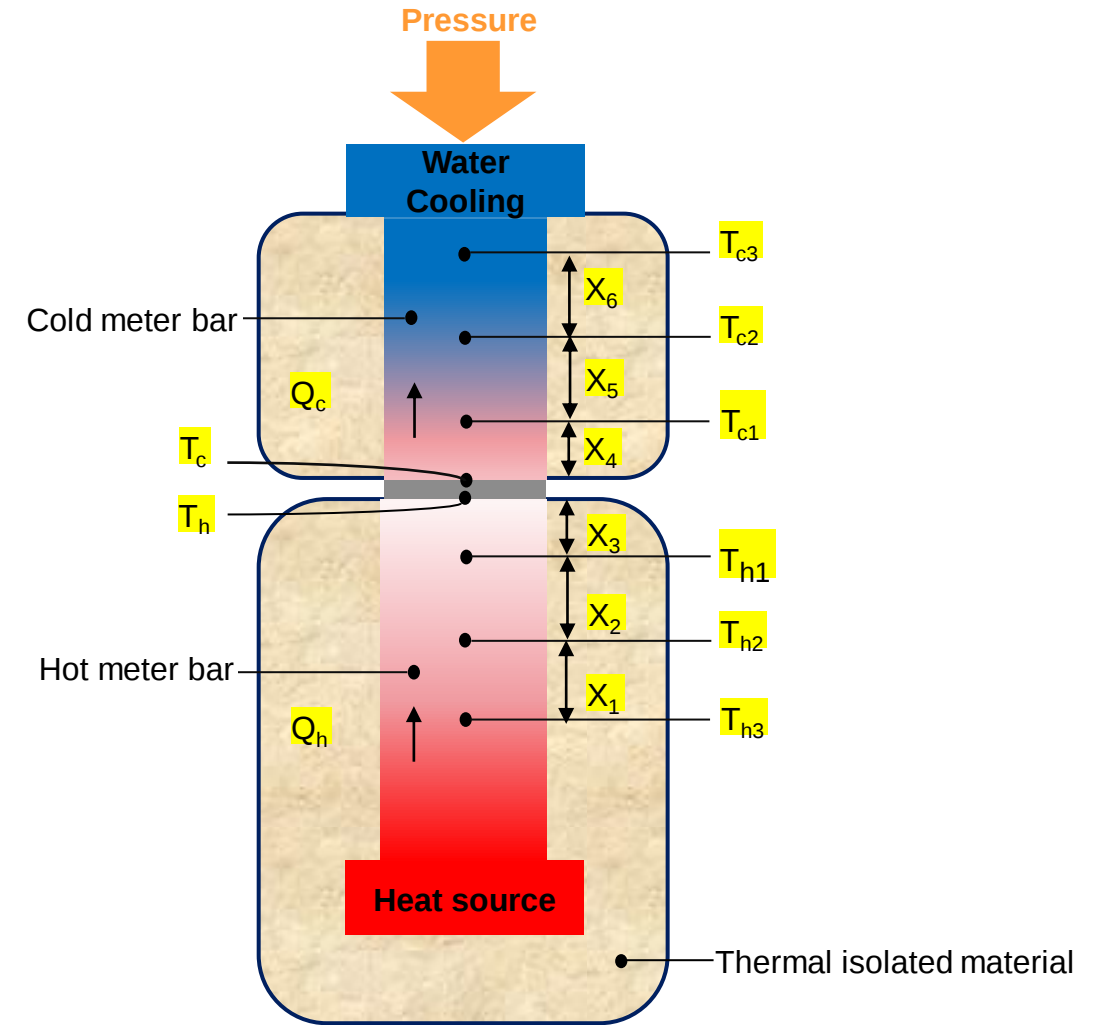
- Pre-melt thermal impedance of PTM6000 is to simulate the thermal overshoots prior to TIM melting in customer site.
- Data of TI vs Temperature is also requested.

Test description

- Instrument for thermal impedance: Cut bar
- Test mechanism: shown in figure on the right
- Size of specimen: 1 inch² in circle, thickness: 0.2mm
- Test pressure: 35psi

Test procedure

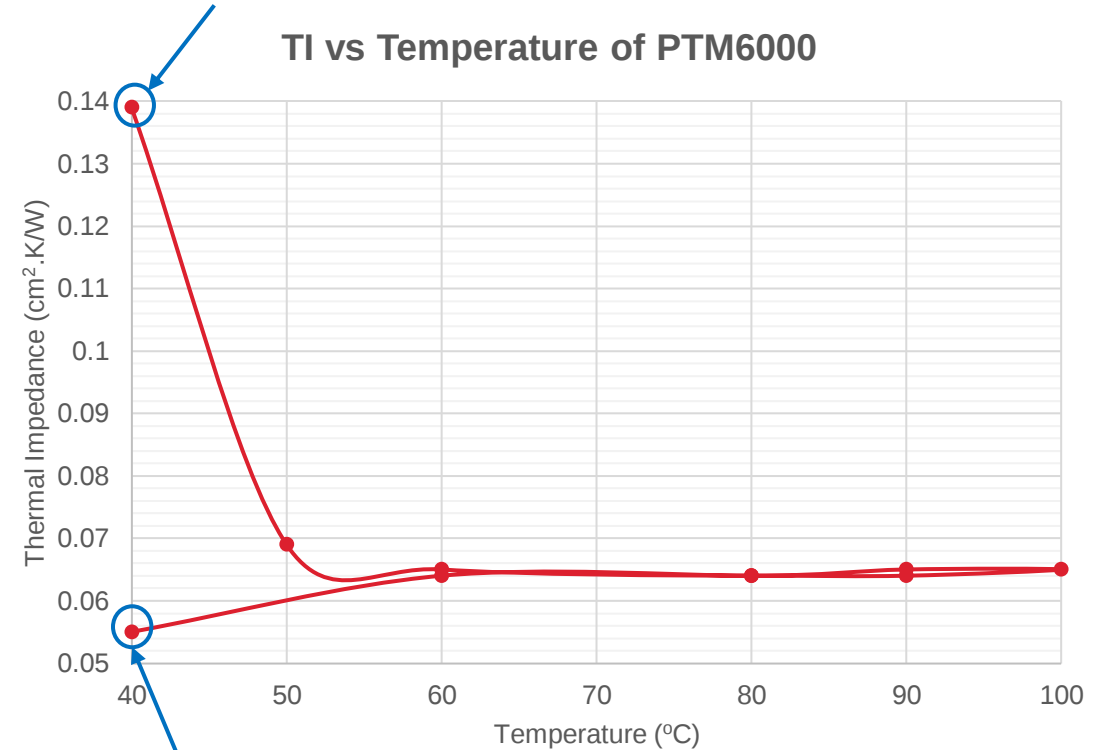
- 0.2 mm of specimen was put on cut bar for testing.
- Adjust heating power to increase test temperature step by step and collect TI data
- Adjust both heating power and flow speed of cooling water to reduce test temperature step by step and collect TI data again
- Test temperature: from 40C up to 100C then cool down to 40C ultimately.



TEST RESULT

Temp. (°C)	TI (°C.cm ² /W)	comment
40.7±1.2	0.139	Heating
49.8±0.7	0.069	Heating
59.3±0.8	0.065	Heating
79.9±1.2	0.064	Heating
89.3±1.4	0.065	Heating
99.7±1.5	0.065	Heating
88.8±1.4	0.064	cooling
79.4±1.2	0.064	cooling
61.1±0.9	0.064	cooling
40.0±0.5	0.055	cooling

No thinning down so TI is high



PTM6000 was thinned down and TI decreased.