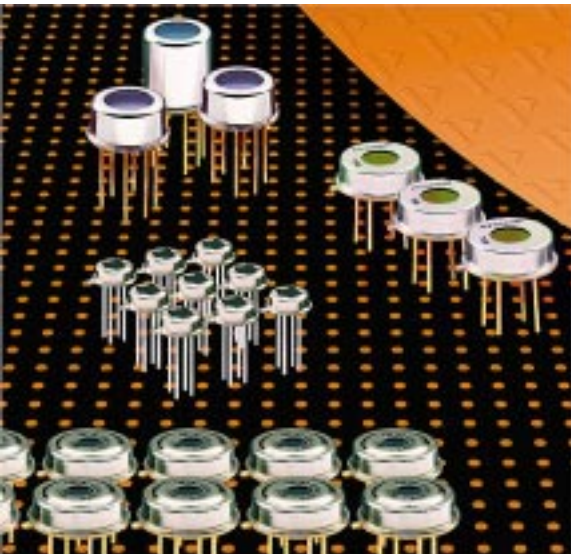


Thermopile Infrared Detectors

Dual Channel Thermopile TPS 2534



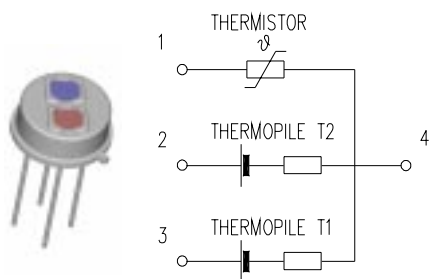
Two thermopiles with individual infrared filters

Thermistor temperature reference included

Applications: infrared absorption (NDIR) gas sensing with reference channel

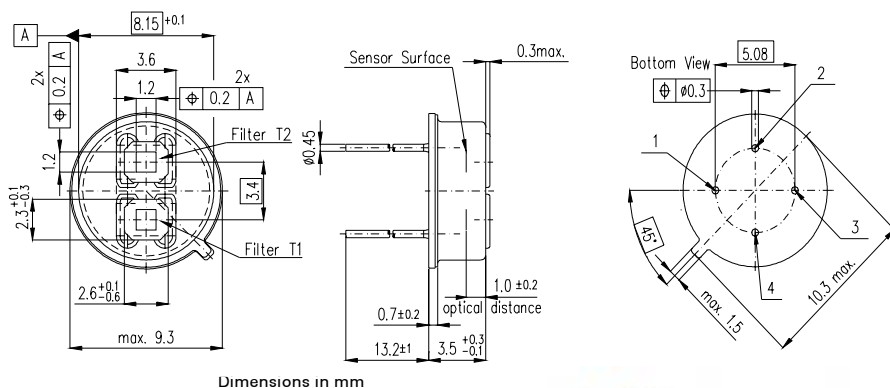
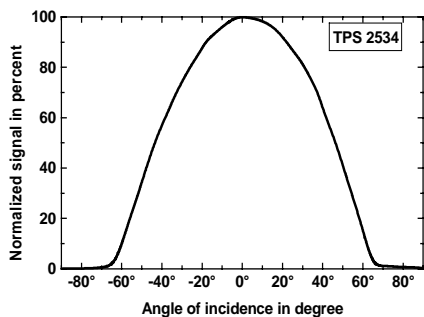
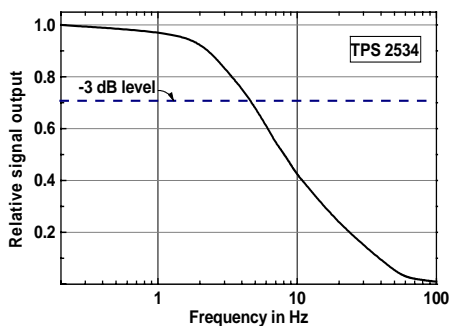
The dual thermopile sensor **TPS 2534** employs two single thermopile chips mounted in a TO 5-type housing with a 30 kΩ thermistor as temperature reference. The cap has two windows of size 2.3 x 2.6 mm² each which can be equipped with different infrared bandpass filters. The sensor is perfectly suited to gas detection by IR absorption.

For further information please refer to the TPS 2534 product note.



| Parameters | TPS 2534 | | |
|------------------------------|-----------------------|-----------------|--------------------|
| | typical | units | condition |
| Sensitive area | 2x 1.2 x 1.2 | mm ² | absorbing area |
| Window size | 2.3 x 2.6 | mm ² | each channel |
| DC sensitivity | 42 | V/W | 500K BB w/o filter |
| Resistance | 30 | kΩ | |
| Noise | 30 | nV/√Hz | r.m.s. 300K |
| NEP | 10.7 | nW/√Hz | 500K BB w/o filter |
| D* | 2.3 x 10 ⁸ | cm√Hz/W | 500K BB w/o filter |
| TC of sensitivity | -0.01 | %/K | |
| TC of resistance | 0.02 | %/K | |
| Time constant | 35 | ms | |
| Operating temperature | -40 | 100 | °C non permanent |
| Storage temperature | -40 | 100 | °C non permanent |
| Thermistor resistance | 30 | kΩ | 25°C |
| beta | 3964 | K | 25°C/100°C |
| Field of view | 2x 90 | ° | at 50% points |

Right for modification reserved / WS / 21.5.2001



Europe:
PerkinElmer Optoelectronics GmbH
 Wenzel Jaksch Str 31
 Wiesbaden / Germany
 Phone +49(0)611 492 0
 Fax +49(0)611 492 170

USA:
PerkinElmer Optoelectronics
 2175 Mission College Blvd
 Santa Clara, CA 95054
 Phone +408 565 0830
 Fax +408 565 0703

Asia:
PerkinElmer Optoelectronics
 47, Ayer Rajah Crescent #06-12
 Singapore 139947
 Phone +65 775 2022
 Fax +65 775 1008

