

TPS 4339 - Quad Thermopile

Four Individual Thermopiles with Different Infrared Bandpass Filters



Description

The **TPS 4339** quad thermopile sensor consists of four single thermopile chips mounted in a TO 5 housing with a thermistor as temperature reference.

The window size is 1.5 x 1.5 mm² each. Due to the overall small sensor size the construction of a very compact equipment becomes possible.

Applications in automotive exhaust gas control, multiple gas detection for the safety product market or air quality monitoring.

For further information please refer to the TPS 4339 product note.

Features

- Four Individual Thermopiles with Different Infrared Bandpass Filters in TO 5 Housing for NDIR Gas Sensing - up to 4 gases possible
- Thermistor Temperature Reference included
- Internal Aperture to Avoid Cross Talk
- Standard Gas Filter Sets for Reference, CO, Hydrocarbon, CO₂

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Figure 1. Package Drawing

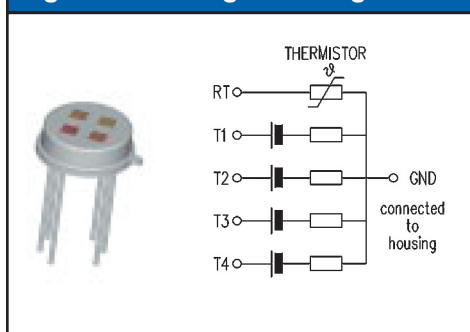


Figure 2.

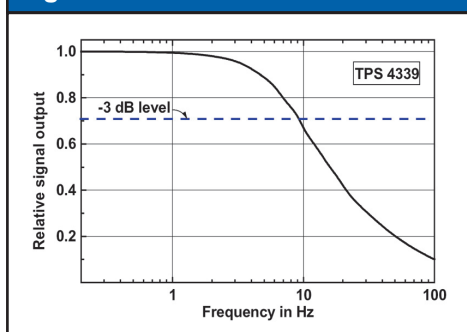


Figure 3.

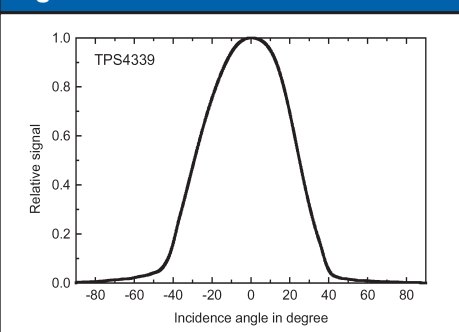


Figure 4. Top View Package Dimension

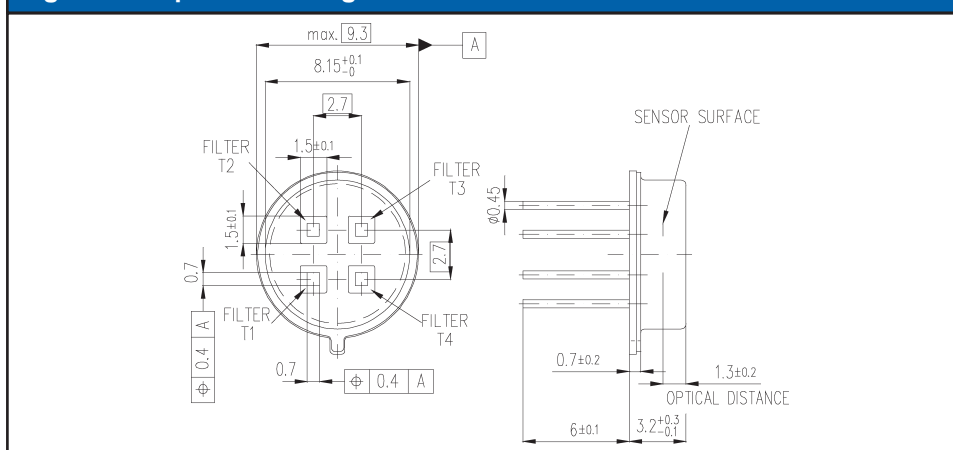


Figure 5. Bottom View

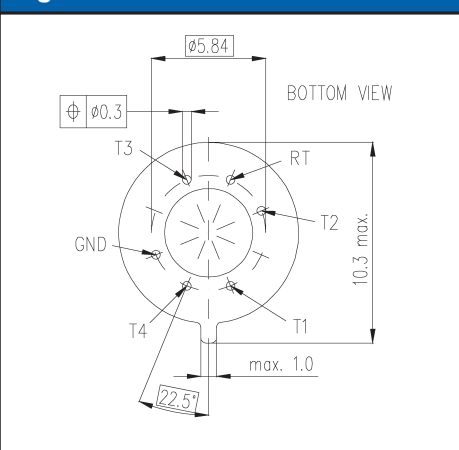


Table 1. TPS 4339

Parameter	Typical	Units	Condition
Sensitive area	4x 0.7 x 0.7	mm ²	absorbing area
Window size	1.5 x 1.5	mm ²	each channel
DC sensitivity	75	V/W	500K BB w/o filter
Resistance	75	kΩ	
Noise	21	nV/√Hz	r.m.s. 300K
NEP	0.28	nW/√Hz	500K BB w/o filter
D*	1.6 x 10 ⁸	cm√Hz/W	500K BB w/o filter
TC of sensitivity	0.02	%/K	
TC of resistance	0.02	%/K	
Time constant	25	ms	
Operating temperature	-40 to 100	°C	non permanent
Storage temperature	-40 to 100	°C	non permanent
Thermistor resistance	100	kΩ	25°C
beta	3964	K	25°C/100°C
Field of view	60	°	at 50% points

For more information e-mail us at opto@perkinelmer.com or visit our website at www.perkinelmer.com/optoelectronics

All values are nominal; specifications subject to change without notice.

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