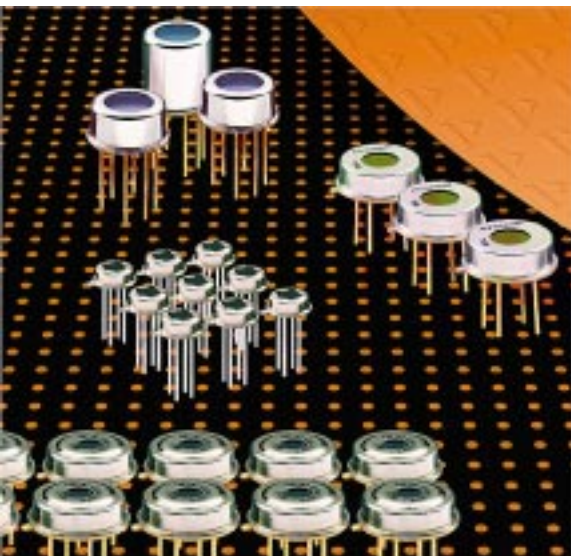
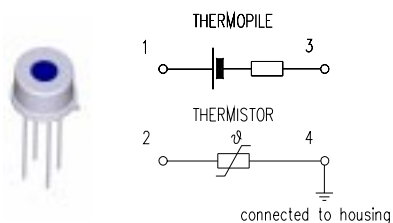


Thermopile Infrared Detectors

Thermopile Detector TPS 534**Large absorber size – high signal output****Low temperature coefficient of sensitivity****Thermistor temperature reference included****Applications in pyrometers, and - with additional infrared bandpass filters - in gas detectors**

The **TPS 534** thermopile sensor in TO 5 type housing employs a chip of 1.2 x 1.2 mm² absorber size and a 30 kΩ thermistor as temperature reference. The round window opening is equipped with a 5.5 μm longpass (standard) infrared filter. The sensor shows a flat sensitivity characteristics over the wavelength.

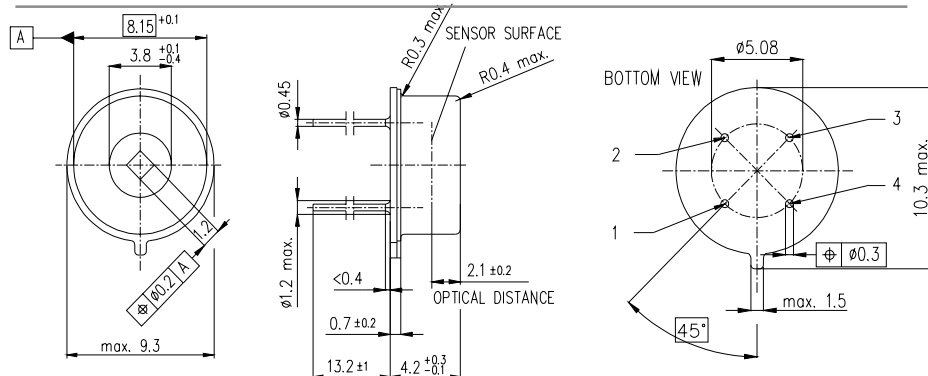
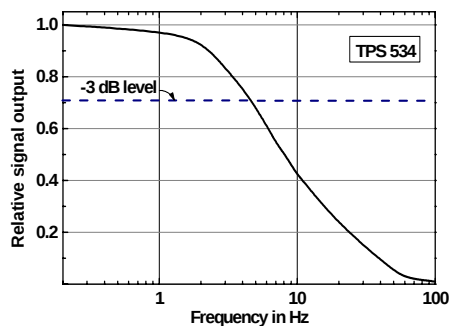
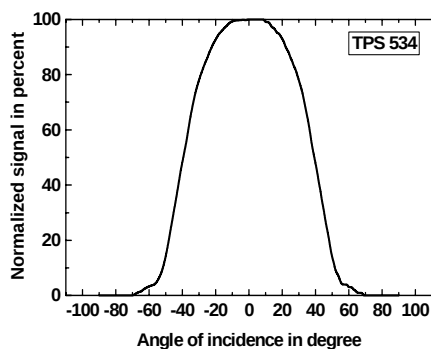
Remark: The TPS 534 can also be equipped with infrared bandpass filters for NDIR gas detection.



Parameters	TPS 534		
	typical	units	condition
Sensitive area	1.2 x 1.2	mm ²	absorbing area
Window size	3.8	mm	diameter
DC Sensitivity	20	V/W	500K BB, 5...14μm
Resistance	40	kΩ	25°C
Noise	25	nV/√Hz	r.m.s. 300K, 1Hz

NEP	1.26	nW/√Hz	500K BB, 5...14μm
D*	0.96 x 10 ⁸	cm ² /Hz/W	500K BB, 5...14μm
Time constant	35	ms	
tc of responsivity	-0.01	%/K	
tc of resistance	0.02	%/K	
Operating Temperature	-40	100	non permanent
Storage Temperature	-40	120	non permanent
Thermistor Resistance	30	kΩ	25°C
Beta	3964	K	25°C / 100°C
Field of view	80	°	at 50% points

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