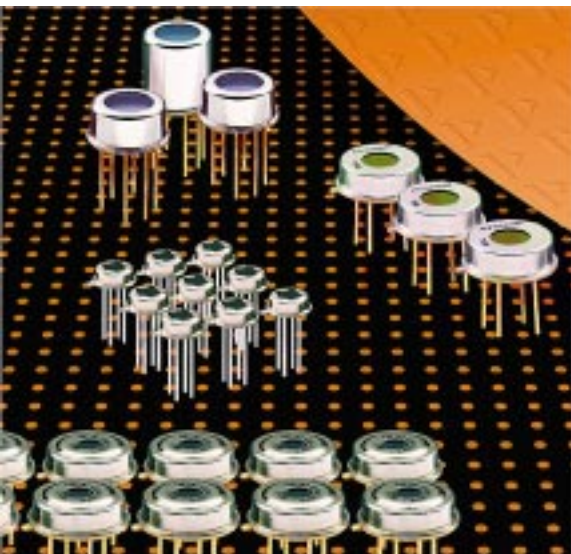


Thermopile Infrared Detectors

Thermopile Detector TPS 534



Large absorber size – high signal output

Low temperature coefficient of sensitivity

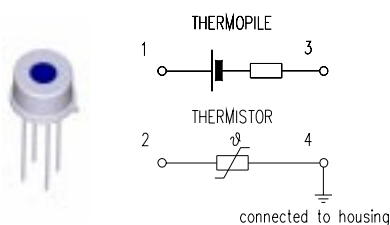
Thermistor temperature reference included

Applications in pyrometers, and - with additional infrared bandpass filters - in gas detectors

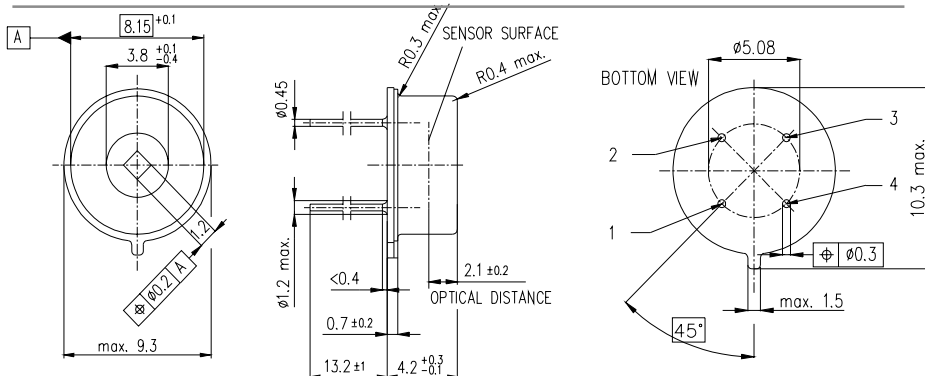
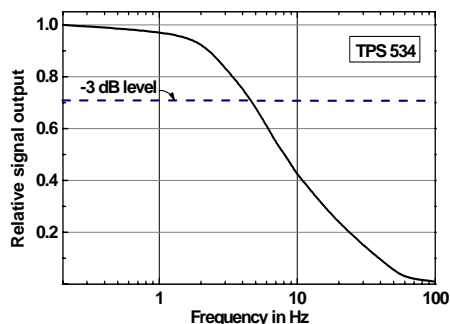
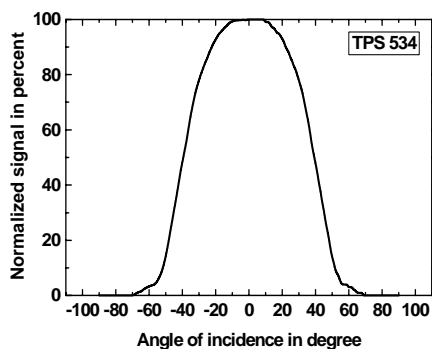
The **TPS 534** thermopile sensor in TO 5 type housing employs a chip of 1.2 x 1.2 mm² absorber size and a 30 kΩ thermistor as temperature reference. The round window opening is equipped with a 5.5 μm longpass (standard) infrared filter. The sensor shows a flat sensitivity characteristics over the wavelength.

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√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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