

Large absorber size – high signal output

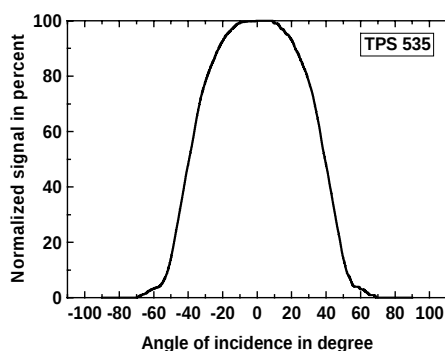
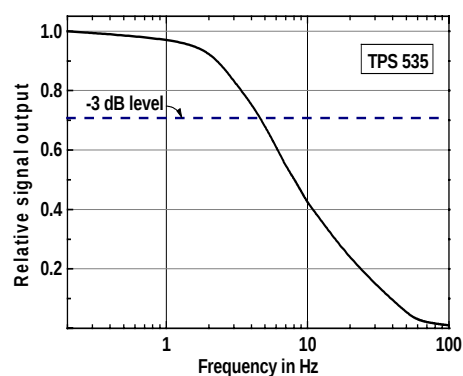
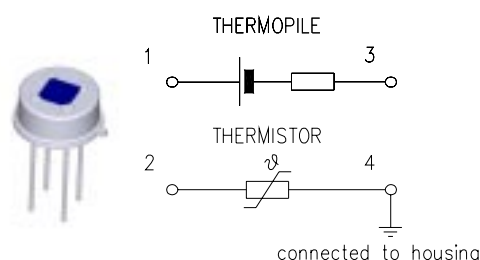
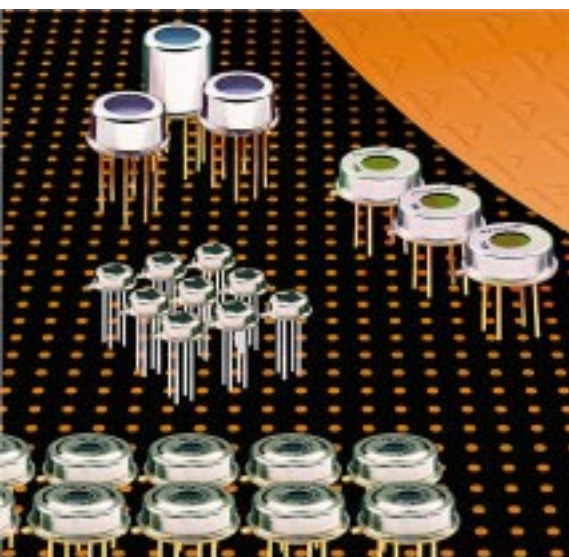
Thermistor temperature reference included

Low temperature coefficient of sensitivity

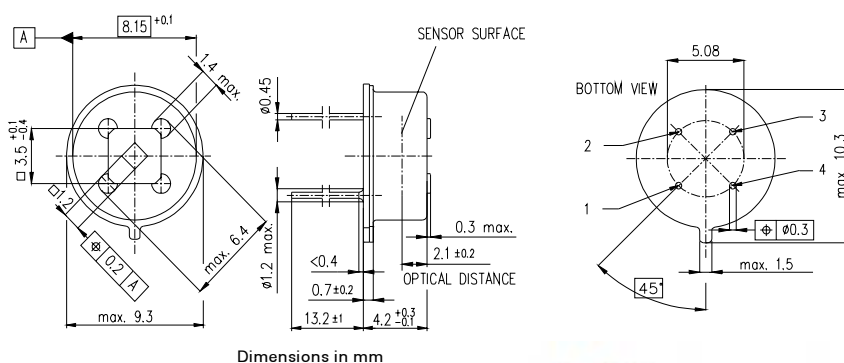
Applications: ear thermometer, gas detectors (with additional infrared bandpass filter)

The **TPS 535** thermopile sensor in TO 5 type housing employs a chip of 1.2×1.2 mm² absorber size and a 30 k Ω thermistor as temperature reference. The square window opening is equipped with a 5.5 μ m longpass (standard) infrared filter. The sensor shows a flat sensitivity characteristics over the wavelength.

The **TPS 535** can also be equipped with infrared bandpass filters for NDIR gas detection.



Parameters		TPS	535	
		typical	units	condition
Sensitive area		1.2 x 1.2	mm ²	absorbing area
Window size		3.5x3.5	mm	
DC sensitivity		20	V/W	500K BB 5..14μm
Resistance		40	kΩ	
Noise		25	nV/√Hz	r.m.s. 300K,
NEP		1.26	nW/√Hz	500K BB 5..14μm
D*		0.96 x 10 ⁸	cm ² /Hz/W	500K BB 5..14μm
TC of sensitivity		-0.01	%/K	
TC of resistance		0.02	%/K	
Time constant		35	ms	
Storage temperature		-40	100	°C non permanent
Operating temperature		-40	100	°C 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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