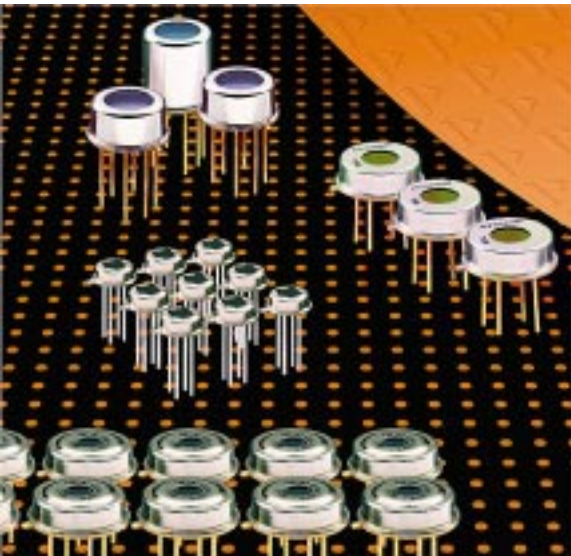


Thermopile Infrared Detectors

Thermopile Detector **TPS 535**



Large absorber size – high signal output

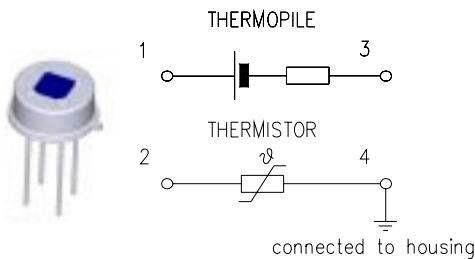
Thermistor temperature reference included

Low temperature coefficient of sensitivity

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

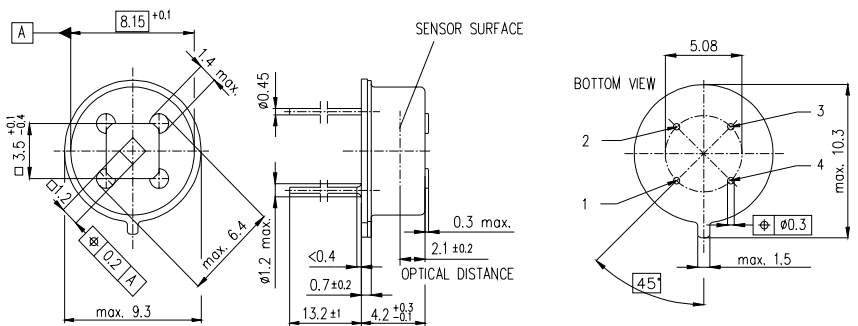
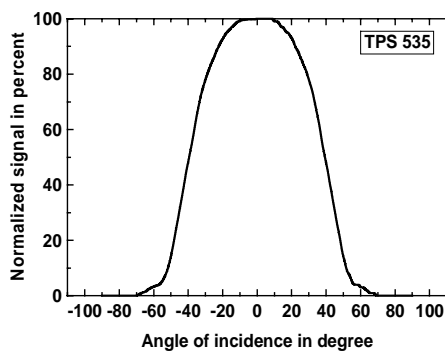
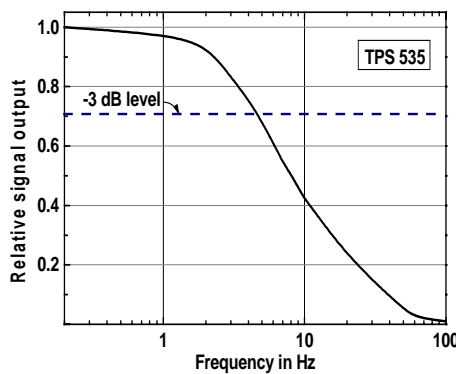
The **TPS 535** thermopile sensor in TO 5 type housing employs a chip of 1.2 x 1.2 mm² absorber size and a 30 k Ω thermistor as temperature reference. The square window opening is equipped with a 5.5 μ m longpass (standard) infrared filter. The sensor shows a flat sensitivity characteristics over the 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..14 μ m
Resistance	40		k Ω	
Noise	25		nV/ \sqrt Hz	r.m.s. 300K,
NEP	1.26		nW/ \sqrt Hz	500K BB 5..14 μ m
D*	0.96 x 10 ⁸		cm \sqrt Hz/W	500K BB 5..14 μ m
TC of sensitivity	-0.01		%/K	
TC of resistance	0.02		%/K	
Time constant	35		ms	
Storage temperature	-40	100	$^{\circ}$ C	non permanent
Operating temperature	-40	100	$^{\circ}$ C	non permanent
Thermistor resistance	30		k Ω	25 $^{\circ}$ C
beta	3964		K	25 $^{\circ}$ C/100 $^{\circ}$ C
Field of view	80		$^{\circ}$	at 50% points

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Dimensions in mm

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