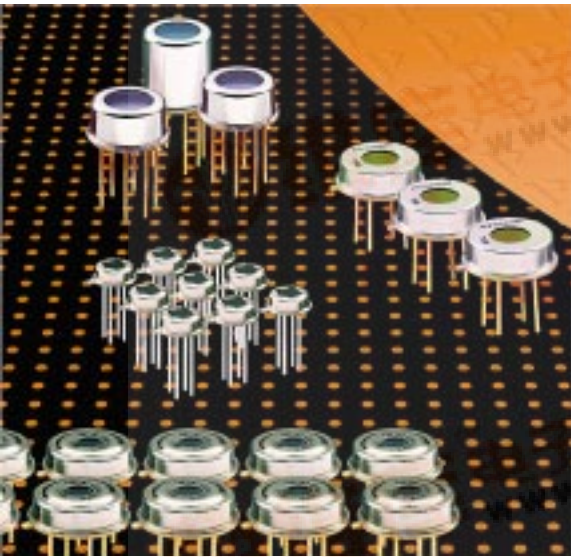


Thermopile Infrared Detectors

Thermopile Detector TPS 534



Large absorber size – high signal output

Low temperature coefficient of sensitivity

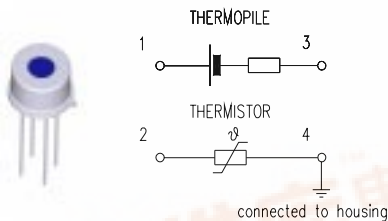
Thermistor temperature reference included

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



Right for modification reserved / WS 1, 2.7.2001

