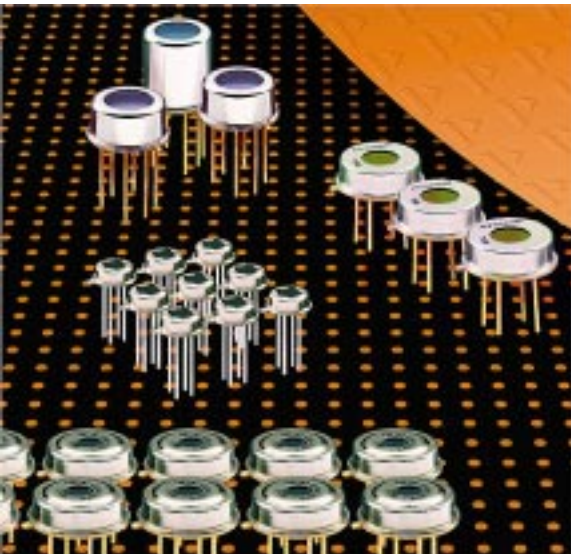


Thermopile Infrared Detectors

# Thermopile Detector **TPS 334**

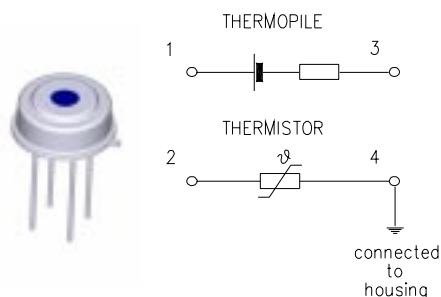


**Small absorber size – best suited for temperature measurement applications**

**Standard type for pyrometers and ear thermometers**

The **TPS 334** thermopile sensor in TO 5 type housing employs a chip of 0.7 x 0.7 mm<sup>2</sup> 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.

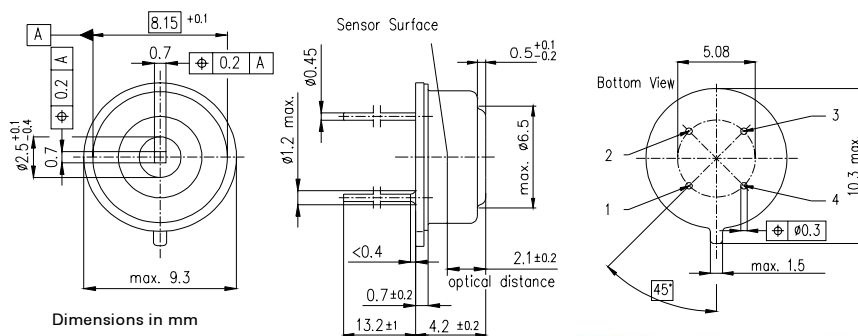
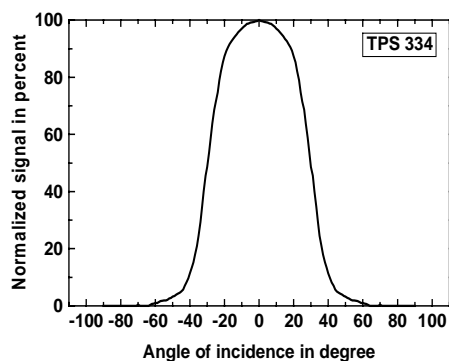
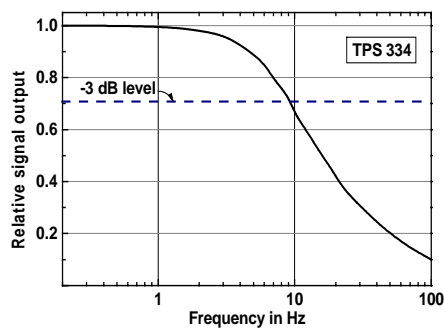
The TPS 334 can be equipped with a G9 (8..14 μm) filter for precision remote temperature sensing (TPS 334 G9).



Parameters	TPS 334		
	typical	units	condition
<b>Sensitive area</b>	0.7 x 0.7	mm <sup>2</sup>	absorbing area
<b>Window size</b>	2.5	mm	diameter
<b>DC sensitivity</b>	35	V/W	500K BB 5...14μm
<b>Resistance</b>	75	kΩ	
<b>Noise</b>	38	nV/√Hz	r.m.s. 300K,
<b>NEP</b>	1.2	nW/√Hz	500K BB 5...14μm
<b>D*</b>	0.6 x 10 <sup>8</sup>	cm√Hz/W	500K BB 5...14μm

<b>TC of sensitivity</b>	0.02	%/K	
<b>TC of resistance</b>	0.02	%/K	
<b>Time constant</b>	25	ms	
<b>Storage temperature</b>	-40	100	°C non permanent
<b>Operating temperature</b>	-40	100	°C non permanent
<b>Thermistor resistance</b>	30	kΩ	25°C
<b>beta</b>	3964	K	25°C/100°C
<b>Field of view</b>	60	°	at 50% points

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