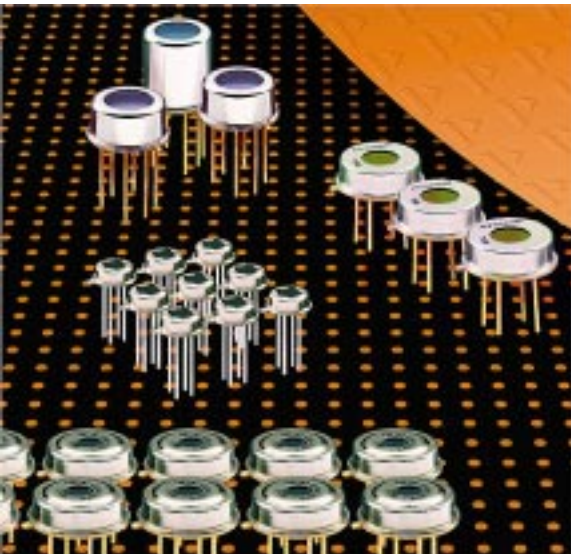


Thermopile Infrared Detectors

# Thermopile Detector TPS 334 L10.6



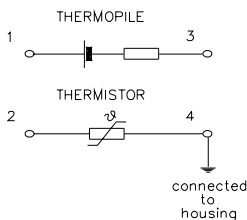
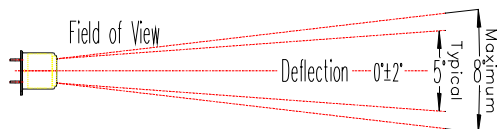
**New: Integrated silicon lens**

**Small spot size: distance – spot size ratio: D:S = 11:1**

**For industrial remote temperature measurement applications**

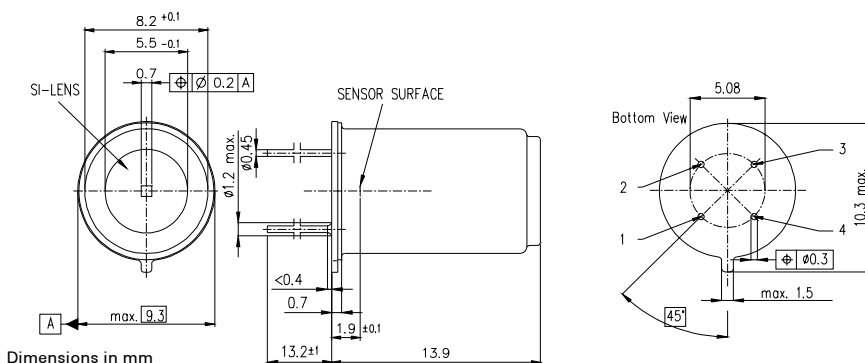
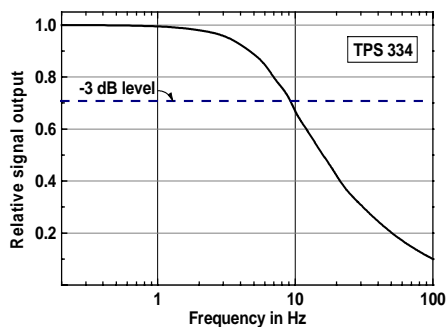
The **TPS 334 L10.6** detector extends the features of the TPS 334 through an integrated micromachined silicon lens optics.

In TO 5 type housing it employs a chip of 0.7 x 0.7 mm<sup>2</sup> absorber size with a 30 kΩ thermistor as temperature reference and a lens with 10.6 mm focal length. An inlay in the housing suppresses reflections at the cap. The lens is not coated, but if a restricted wavelength region is desired (e.g. 8..14 μm), it is possible to equip the inlay with an additional filter (e.g. G9). The sensor shows a flat sensitivity characteristics over the wavelength.



Parameters	TPS 334 L10.6		
	typical	units	condition
<b>Sensitive area</b>	0.7 x 0.7	mm <sup>2</sup>	absorbing area
<b>Window size</b>	5.5	mm	diameter
<b>DC sensitivity</b>	75	V/W	500K BB w/o optics
<b>Resistance</b>	75	kΩ	
<b>Noise</b>	21	nV/√Hz	r.m.s. 300K,
<b>NEP</b>	0.28	nW/√Hz	500K BB w/o optics
<b>D*</b>	1.6 x 10 <sup>8</sup>	cm√Hz/W	500K BB w/o optics
<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>	5	°	at 50% points

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