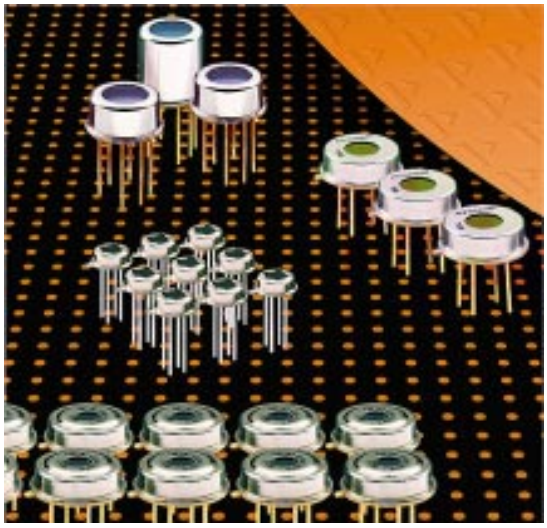
Thermopile Detector TPS 334 L10.6

DATASHEET



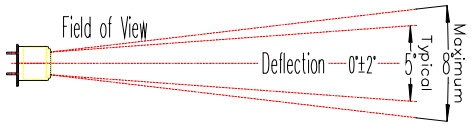
New: Integrated silicon lens

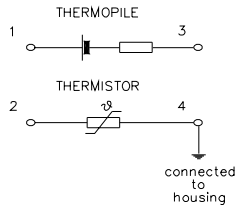
Small spot size: distance – spot size ratio: D:S = 11:1

For industrial remote temperature measurement applications

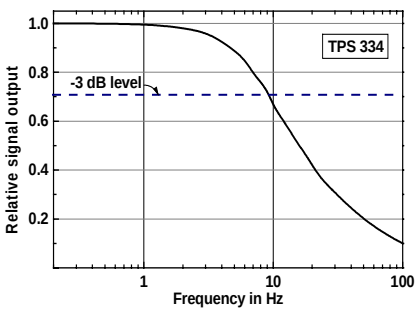
The **TPS 334 L10.6** detector extends the features of the TPS 334 through an integrated micromachined silicon lens optics.

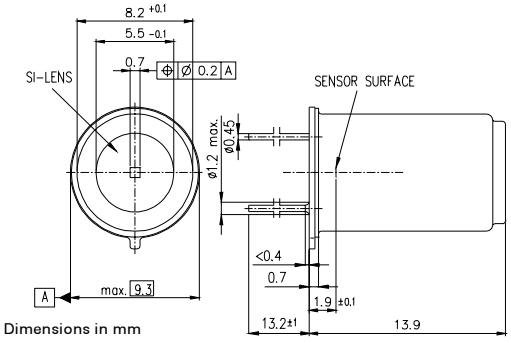
In TO 5 type housing it employs a chip of 0.7 x 0.7 mm² absorber size with a 30 kΩ thermistor as temperature reference and a lens with 10.6 mm focal length. An inlay in the housing suppresses reflections at the cap. The lens is not coated, but if a restricted wavelength region is desired (e.g. 8..14 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.

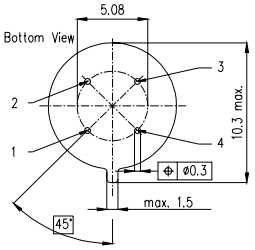




Parameters	TPS 334 L10.6		
	typical	units	condition
Sensitive area	0.7 x 0.7	mm²	absorbing area
Window size	5.5	mm	diameter
DC sensitivity	75	V/W	500K BB w/o optics
Resistance	75	kΩ	
Noise	21	nV/√Hz	r.m.s. 300K,
NEP	0.28	nW/√Hz	500K BB w/o optics
D*	1.6 x 10^8	cm√Hz/W	500K BB w/o optics
TC of sensitivity	0.02	%/K	
TC of resistance	0.02	%/K	
Time constant	25	ms	
Storage temperature	-40 / 100	°C	non permanent
Operating temperature	-40 / 100	°C	non permanent
Thermistor resistance	30	kΩ	25°C
Thermistor beta	3964	K	25°C/100°C
Field of view	5	°	at 50% points







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