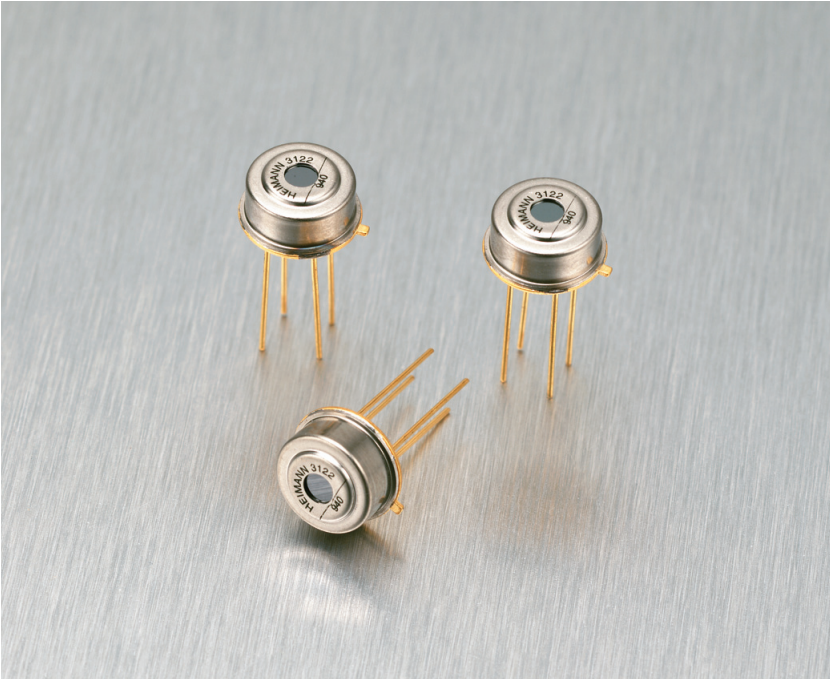


TPS 334 - Thermopile Detector

Small Absorber Size



Description

The **TPS 334** thermopile sensor in TO 5 type housing employs a chip of $0.7 \times 0.7 \text{ mm}^2$ absorber size and a $30 \text{ k}\Omega$ thermistor as a temperature reference. The round window opening is equipped with a $5.5 \mu\text{m}$ longpass (standard) infrared filter. The sensor shows a flat sensitivity characteristics over the wavelength.

The TPS 334 can be equipped with a G9 ($8 \dots 14 \mu\text{m}$) filter for precision remote temperature sensing (TPS 334 G9).

Features

- Small Absorber Size - Best Suited for Temperature Measurement Applications
- Standard Size for Pyrometers and Ear Thermometers

TPS 334 - Thermopile Detector Small Absorber Size

Figure 1. Package Drawing

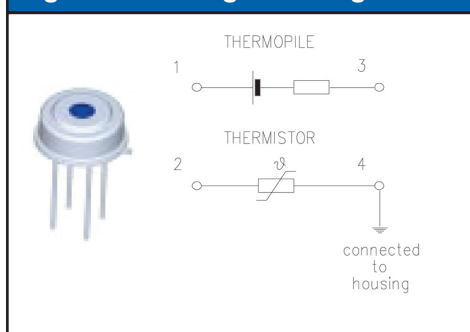


Figure 2.

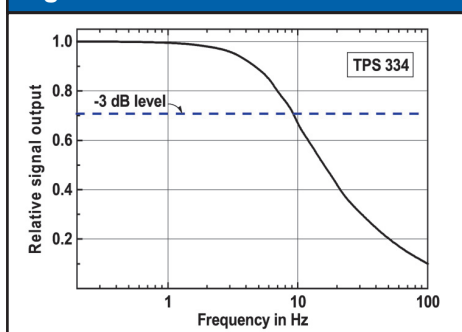


Figure 3.

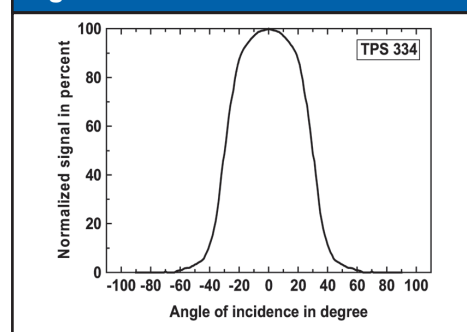


Figure 4. Top View Package Dimension

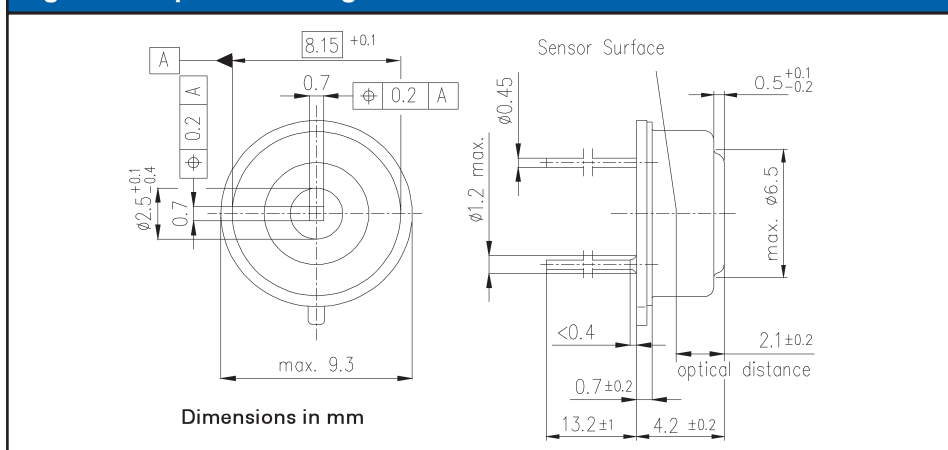


Figure 5. Bottom View

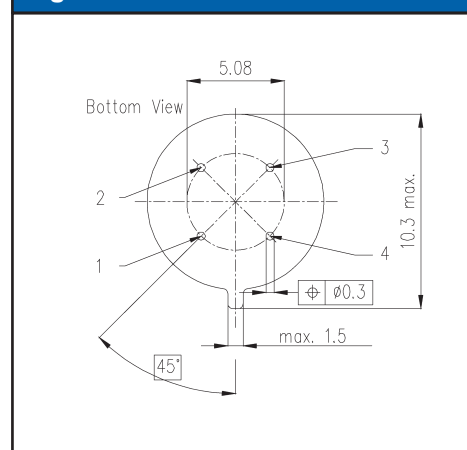


Table 1. TPS 334

Parameter	Typical	Units	Condition
Sensitive area	0.7 x 0.7	mm ²	absorbing area
Window size	2.5	mm	diameter
DC sensitivity	35	V/W	500K BB 5 ... 14µm
Resistance	75	kΩ	
Noise	38	nV/√Hz	r.m.s. 300K
NEP	1.2	nW/√Hz	500K BB 5 ... 14µm
D*	0.6 x 10 ⁸	cm√Hz/W	500K BB 5 ... 14µm
TC of sensitivity	0.02	%/K	
TC of resistance	0.02	%/K	
Time constant	25	ms	
Operating temperature	-40 to 100	°C	non permanent
Storage temperature	-40 to 100	°C	non permanent
Thermistor resistance	30	kΩ	25°C
beta	3964	K	25°C/100°C
Field of view	60	°	at 50% points

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 All values are nominal; specifications subject to change without notice.

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