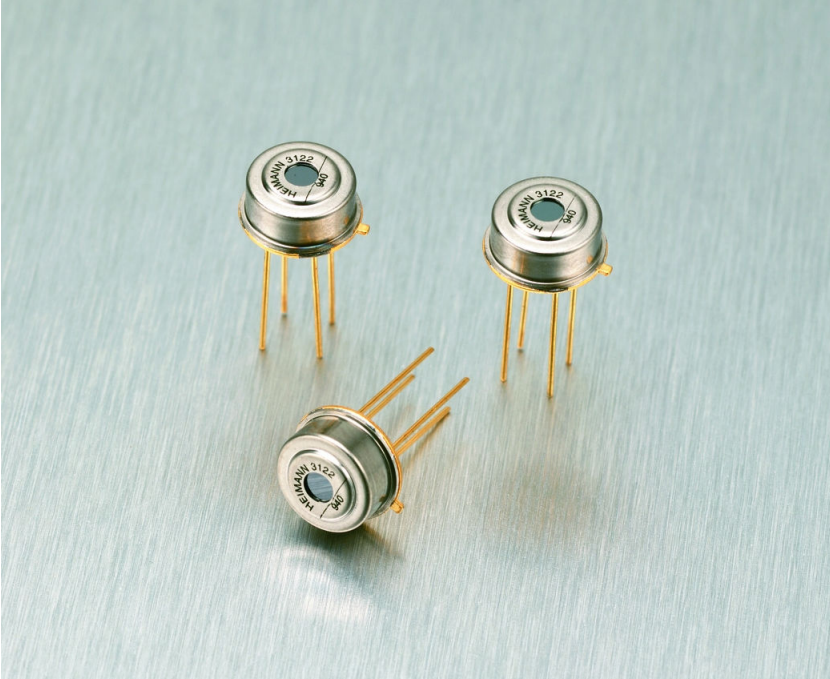


TPS 334 - Thermopile Detector

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

Figure 1. Package Drawing

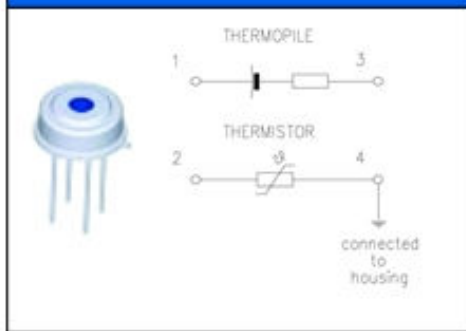


Figure 2.

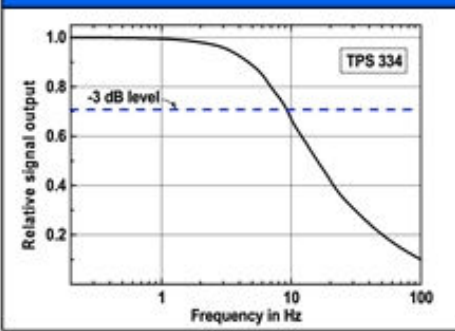


Figure 3.

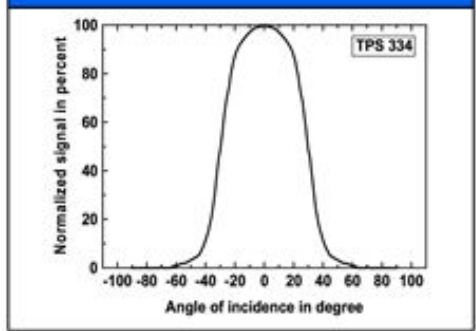


Figure 4. Top View Package Dimension

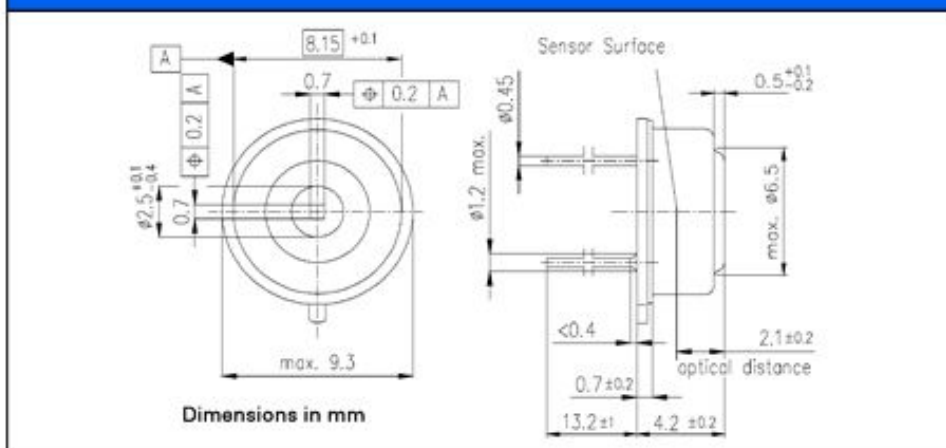


Figure 5. Bottom View

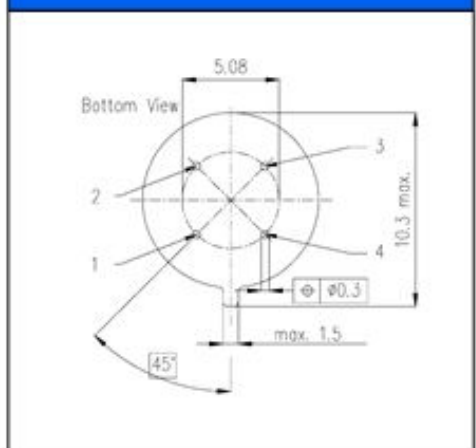


Table 1. TPS 334

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

For more information e-mail us at opto@excelitas.com or visit our website at www.excelitas.com/

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

North America:
 Excelitas Technologies
 16800 Trans-Canada Highway
 Kirkland, Quebec J7V 8P7 Canada
 Toll Free: (877) 734-OPTO (6786)
 Phone: +1-450-424-3300
 Fax: +1-450-424-3411

Europe:
 Wenzel-Jaksch-Str. 31
 D-65199 Wiesbaden, Germany
 Phone: +49-611-492-430
 Fax: +49-611-492-165

Asia:
 47 Ayer Rajah Crescent #06-12
 Singapore 139947
 Phone: +65-6770-4366
 Fax: +65-6775-1008

EXCELITAS
 TECHNOLOGIES