

Cooled Photodiode InAsSb

2.2 – 6.6 μm



DATASHEET

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Features

- 2.2 – 2.6 μm
- Low Noise
- High Sensitivity
- Hermetic Sealed Detector
- MEMS Chopper Integration Option

Applications

- OEM
- Lab user
- Instruments

The CPOD serials cooled InAsSb photodiode is a photovoltaic multi-junction device that provides reduced noise for detecting mid-infrared light in the 2.2-6.6 μm range. These detectors are integrated with one stage TEC cooler and hermetically sealed to ensure longevity. It has an AR coated silicon window and package in a TO39 can. It is fully compliant with RoHs. Additionally, a driving PCB with an amplifier is available for convenient use.

Due to their high sensitivity to electrostatic discharge, warranty coverage applies only to fully metal covered modules the benchtops, which include proper protection. Other versions of the lasers and photodetectors are not covered by any warranty. Please use them with great caution.

Specifications

Specifications

Parameter	Min	Typical	Max	Unit	
Central Wavelength	2.2	4.3	6.6	μm	
Sensor Active Diameter		1x1		mm	
Detectivity (@4.3μm, 20KHz)	>0.9	>0.9	>0.9	10 ⁹ cmHz ^{1/2} /W	
Current Responsibility (@14.3μm)		0.18		A/W	
Time Constant	60	200	800	pF	
Resistance		48		Ω	
Operating Temperature		900		°C	
Storage Temperature	-50		85	°C	
TEC Cooler Power	-10 °C	<1V@2A	<1V@2A	<2V@1.3A	W

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

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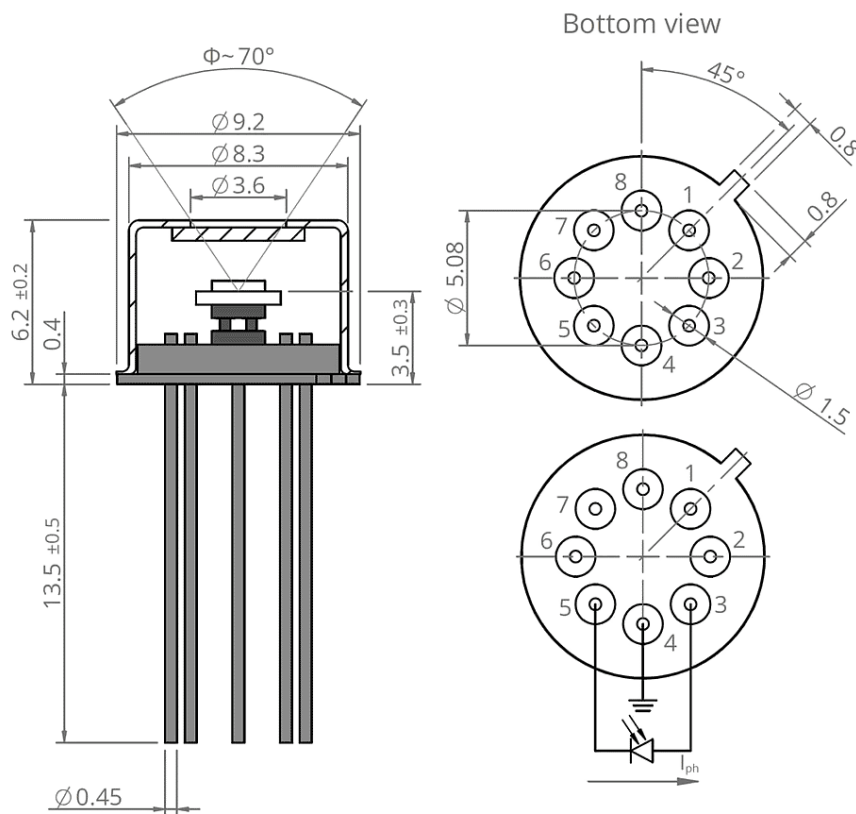
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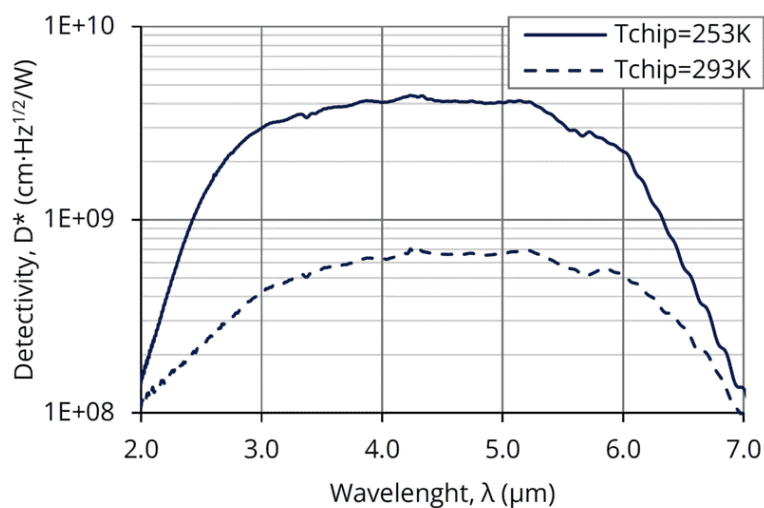
Mechanical Dimensions (mm)



Pin No.	Description
1	TE cooler (+)
2	Not used
3	Detector anode (+)
4	Ground
5	Detector cathode (-)
6	Thermistor Pin1
7	TE cooler (-)
8	Thermistor Pin2

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Typical Response



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Ordering Information (Part Number)

	6	1	☐	☐	☐	☐	☐ ☐
Prefix	Material Type	TEC Type	Integrated Chopper	Detector Size	Window	AR Coated	Driver
CPOD-	InAsSb = 6	1 stage 10°C = 1	Non = 1 Yes = 2	1mm = 1 3mm = 3 5mm = 5	Silicon = 1 Spectral Filter = S	Yes = 1 None = 2	No = 00 Yes = 11

Red is special order.

Application Notes

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