

CHEMSENSE DETECTORS

Mid IR Detector: 1 - 2.4 mm

2.2PD500

The 2.2PD series of detectors is based on GaInAsSb/GaAlAsSb heterostructure technology. Spectral sensitivity lies between 1 and 2.4 μm , and peak response of 1 A/W occurs at about 2.2 μm . Operation can be photovoltaic or photoconductive, and pulsed or CW. Price/performance compared to extended wavelength InGaAs is superior due to the high shunt resistance and low price. Standard packaging includes TO-18 and TO-5 headers.

Features

High Shunt Resistance
Pulsed or CW
Photovoltaic or CW

Device Characteristics		
Parameters @ 25°C	Value	Units
Active area diameter	0.5	mm
Peak Wavelength	2.0 - 2.2	μm
Detectivity	(3 - 5)E10	$\text{cm}\cdot\text{Hz}^{1/2}/\text{W}$
Rise & Fall Time (50 Ohm, 0.0 V)	10 - 20	ns
Long-wavelength detector cut-off	2.40 +- 0.02	μm
Short-wavelength detector cut-off	0.9 - 1.0	μm
Dark Current @ -1.0V	10 - 30	μA
Responsivity	0.9 - 1.1	A/W
Shunt Resistance	10 - 20	kOhms
Capacitance @ 0.0 V	50 - 100	pF
Operating Temperature	+25	°C
Package	TO-18	

