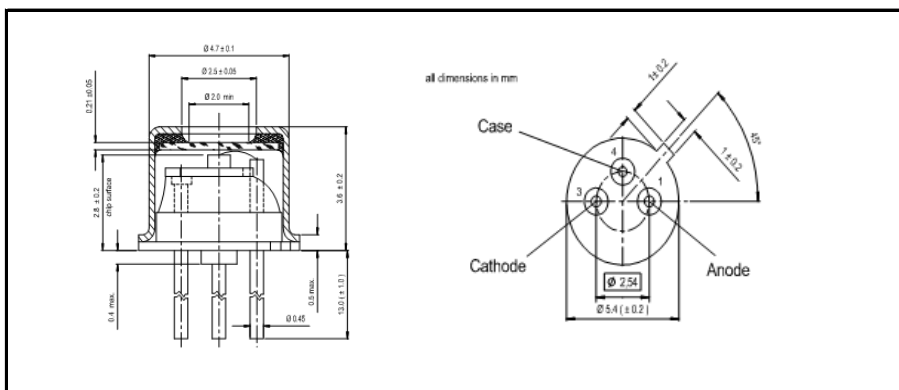




Features

- 1000 μm x 1000 μm active area
- Low dark current
- Fast response time
- High speed epitaxy

Description

High speed epitaxy PIN photodiode with 1 mm² square active area. Metal can type hermetic TO52 package with clear glass window.

Application

- Pulsed light detection
- High speed photometry
- High speed optical communications
- Fiber optic light monitoring

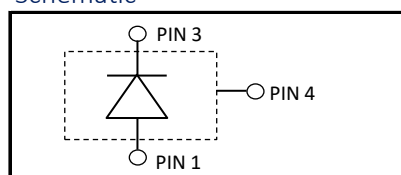
RoHS

2011/65/EU

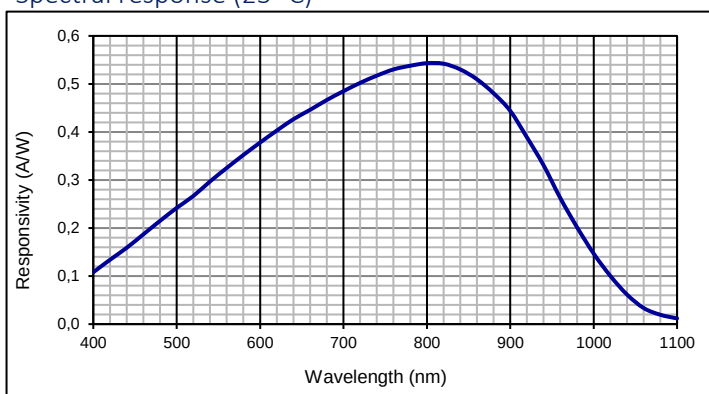
Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-55	125	°C
T_{OP}	Operating temp	-40	100	°C
V_{max}	Max reverse voltage		40	V
I_{PEAK}	Peak DC current		10	mA

Schematic



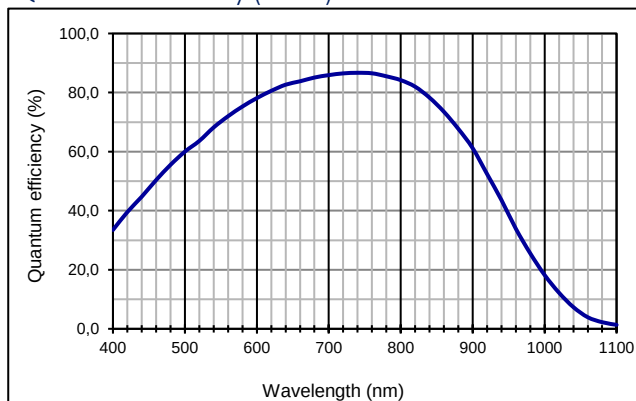
Spectral response (23 °C)



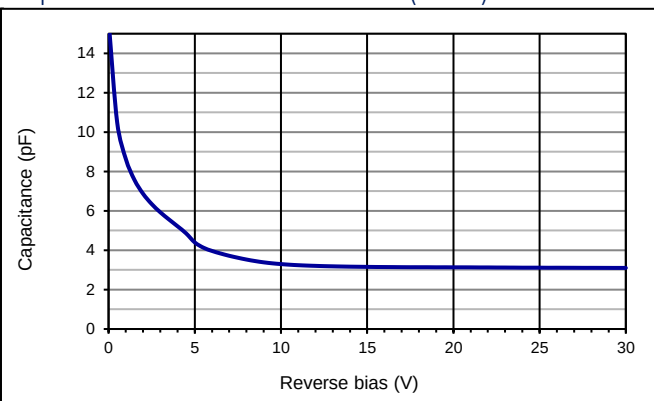
Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		1000 x 1000			μm^2
	Active area		1.0			mm ²
I_{D}	Dark current	$V_{\text{R}} = 20 \text{ V}$		0.2	1	nA
C	Capacitance	$V_{\text{R}} = 0 \text{ V}$		20		pF
C	Capacitance	$V_{\text{R}} = 20 \text{ V}$		3.5		pF
	Responsivity	$\lambda = 635 \text{ nm}$		0.4		A/W
	Responsivity	$\lambda = 800 \text{ nm}$		0.52		A/W
t_{R}	Rise time	$V_{\text{R}} = 20 \text{ V}; \lambda = 850 \text{ nm}; R_{\text{L}} = 50 \Omega$		1.0		ns
V_{BR}	Breakdown voltage	$I_{\text{R}} = 2 \mu\text{A}$	40	50		V
	Shunt resistance	$V_{\text{R}} = 10 \text{ mV}$		500		M Ω
	N.E.P.	$V_{\text{R}} = 20 \text{ V}; \lambda = 850 \text{ nm}$		1.5 E-14		W/ $\sqrt{\text{Hz}}$

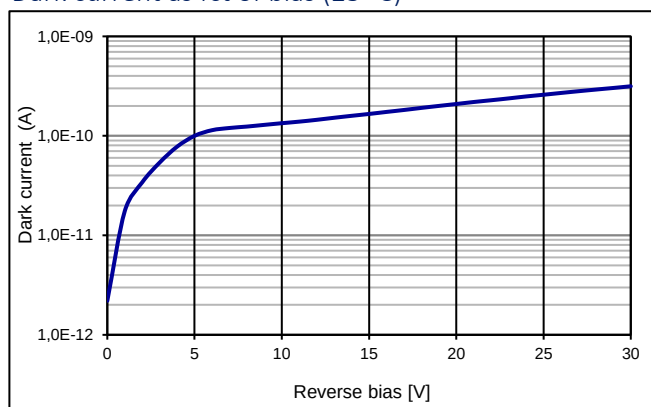
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



Package dimension:

Foam pad, boxed (12 cm x 16.5 cm)

Handling:

Please refer to document "Instructions for handling and processing"

Disclaimer: Due to our strive for continuous improvement, specifications are subject to change within our PCN policy according to JESD46C.

Mouser Electronics

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First Sensor:

[PS1.0-5B-TO52S1.3](#) [PS1.0-5-TO52S1](#) [PS1.0-6B-TO52S1.3](#) [PS1.0-5](#)