
Features

- PIN PD with 20 mm^2 active area
- High speed epitaxy
- Fast response time
- Low dark current

Description

High speed epitaxy PIN photodiode with 20 mm^2 circular active area. Metal can type hermetic TO8 package with clear glass window.

Application

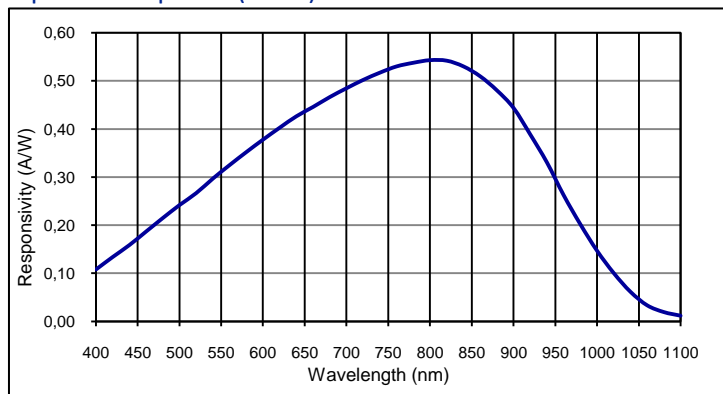
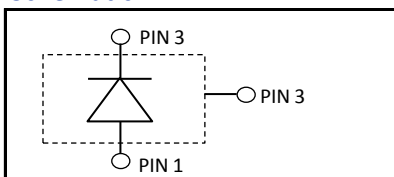
- Pulsed light detection
- High speed photometry
- High speed optical communications
- Fiber optic light monitoring

RoHS

2002/95/EC


Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-55	125	$^{\circ}\text{C}$
T_{OP}	Operating temp	-40	100	$^{\circ}\text{C}$
V_{max}	Max reverse voltage		30	V
I_{PEAK}	Peak DC current		10	mA

Spectral response (23 $^{\circ}\text{C}$)

Schematic

Electro-optical characteristics @ 23 $^{\circ}\text{C}$

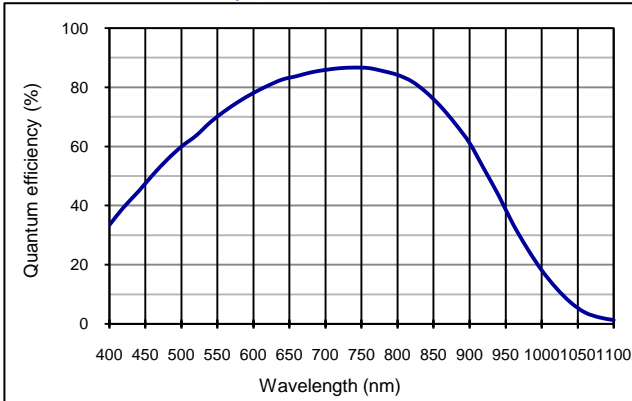
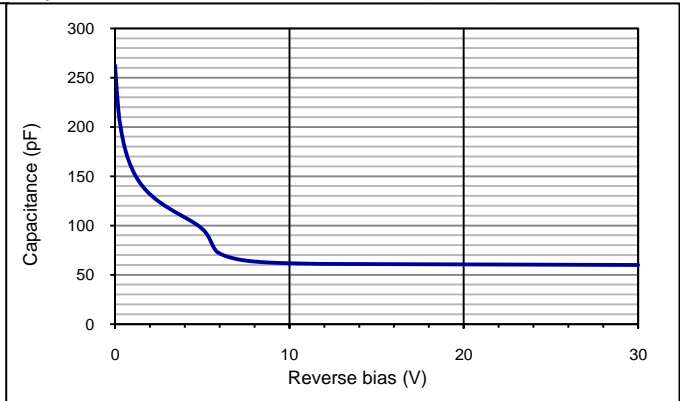
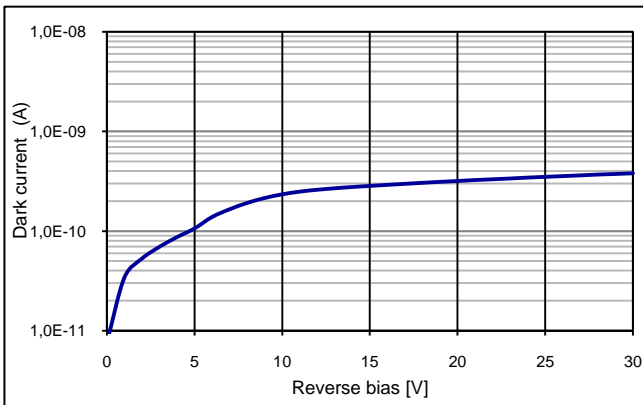
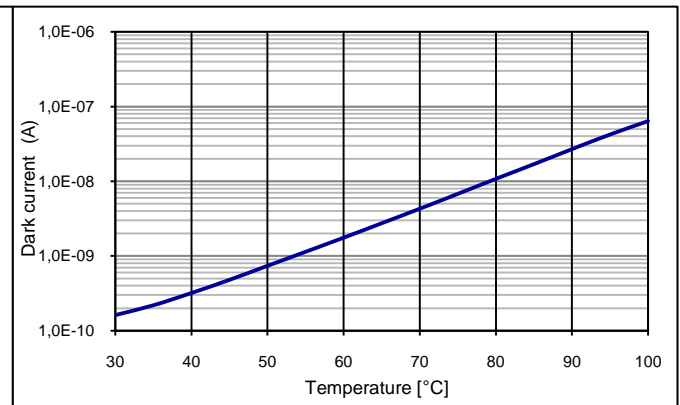
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		diameter 5050			μm
	Active area		20			mm^2
I_D	Dark current	$V_R = 20 \text{ V}$		2	5	nA
C	Capacitance	$V_R = 0 \text{ V}$		300		pF
		$V_R = 20 \text{ V}$		65		pF
	Responsivity	$\lambda = 632 \text{ nm}$		0.4		A/W
		$\lambda = 800 \text{ nm}$		0.52		A/W
t_R	Rise time	$V_R = 20 \text{ V}; \lambda = 850 \text{ nm}; R_L = 50 \Omega$		3.5		ns
	Shunt Resistance	$V_R = 10 \text{ mV}$		50		$\text{M}\Omega$
	N.E.P.	$V_R = 20 \text{ V}; \lambda = 850 \text{ nm}$		4.9 E-14		$\text{W}/\sqrt{\text{Hz}}$
V_{BR}	Breakdown voltage	$I_R = 2 \mu\text{A}$	30	50		V

European, International Sales:


First Sensor AG
 Peter-Behrens-Strasse 15
 12459 Berlin
 Germany
 T +49 30 6399 2399
 F +49 30 639923-752
 sales.opto@first-sensor.com

USA:


First Sensor Inc.
 5700 Corsa Avenue #105
 Westlake Village
 CA 91362 USA
 T +1 818 706 3400
 F +1 818 889 7053
 sales.us@first-sensor.com

Quantum efficiency (23 °C)

Capacitance as fct of reverse bias (23 °C)

Dark current as fct of bias (23 °C)

Dark current as fct of temperature ($V_R = 10$ V)

Application hints:

Please refer to document "Instructions for handling and processing".

Package dimension:

Small quantities: Foam pad, boxed (12 cm x 16.5 cm)

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

European, International Sales:

 First Sensor AG
 Peter-Behrens-Strasse 15
 12459 Berlin
 Germany
 T +49 30 6399 2399
 F +49 30 639923-752
 sales.opto@first-sensor.com

USA:

 First Sensor Inc.
 5700 Corsa Avenue #105
 Westlake Village
 CA 91362 USA
 T +1 818 706 3400
 F +1 818 889 7053
 sales.us@first-sensor.com