
**Features**

- 5 mm<sup>2</sup> PIN detector
- Low dark current
- High shunt resistance
- High sensitivity
- Fully depleteble

**Description**

Circular active area PIN photodiode with 5 mm<sup>2</sup> active area. Metal can type isolated and hermetic TO8 package with clear glass window.

**Application**

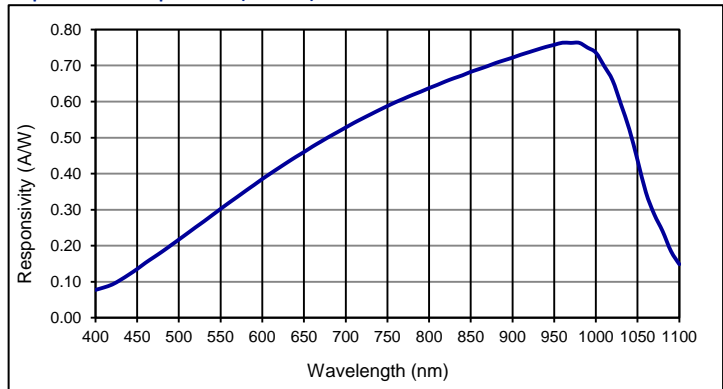
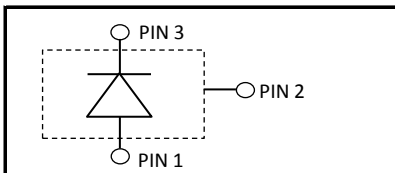
- Precision photometry
- Medical equipment
- Pulsed light sensor

**RoHS**

2002/95/EC


**Absolute maximum ratings**

Symbol	Parameter	Min	Max	Unit
T <sub>STG</sub>	Storage temp	-55	125	°C
T <sub>OP</sub>	Operating temp	-40	100	°C
V <sub>max</sub>	Max reverse voltage		300	V
I <sub>PEAK</sub>	Peak DC current		10	mA

**Spectral response (23 °C)**

**Schematic**

**Electro-optical characteristics @ 23 °C**

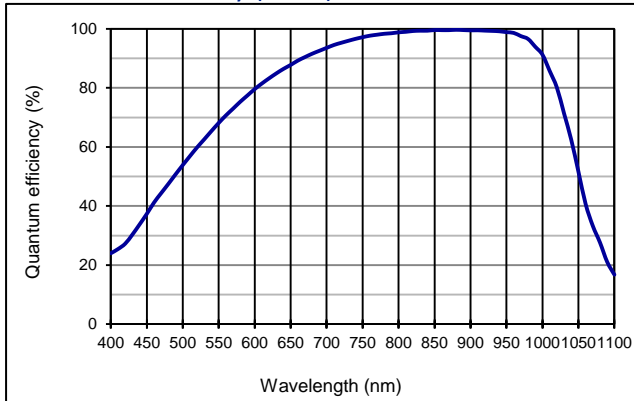
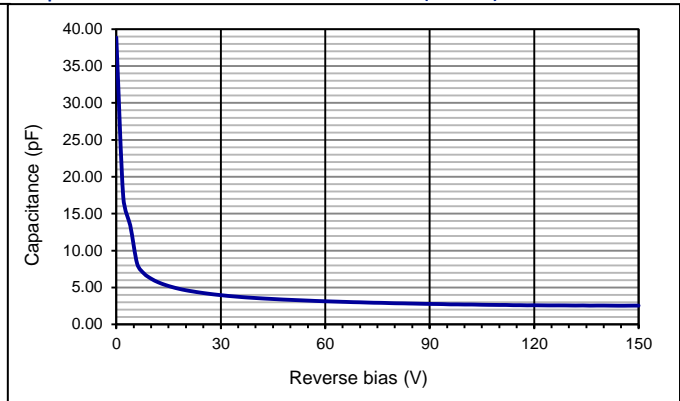
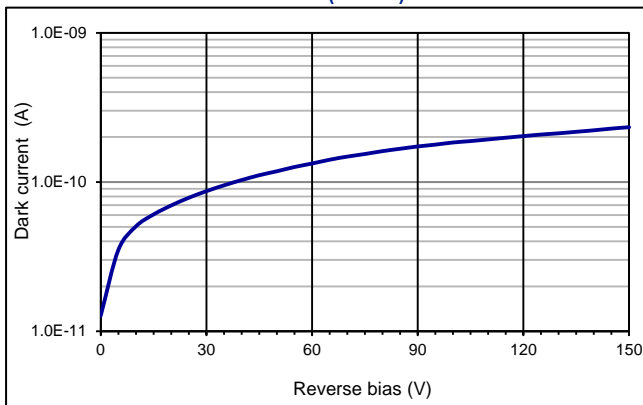
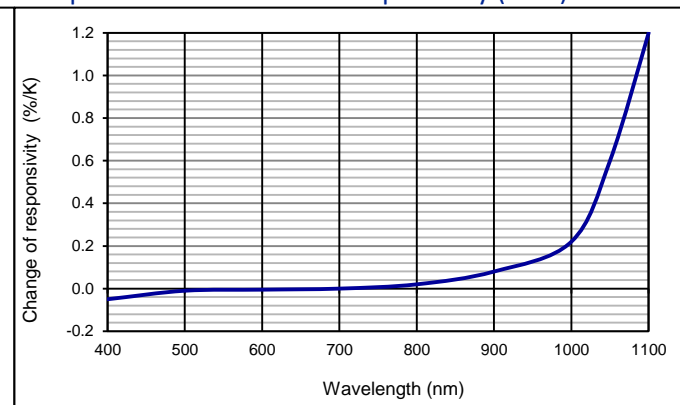
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		diameter 2532			μm
	Active area		5			mm <sup>2</sup>
I <sub>D</sub>	Dark current	V <sub>R</sub> = 10 V		0.05	0.2	nA
		V <sub>R</sub> = 150 V		0.4	1.0	nA
T <sub>K</sub> (I <sub>D</sub> )	Temperature coefficient	V <sub>R</sub> = 10 V; change of dark current		13		%/K
C	Capacitance	V <sub>R</sub> = 10 V; f = 10 kHz		6.0		pF
		V <sub>R</sub> = 150 V; f = 10 kHz		2.5		pF
	Responsivity	λ = 800 nm		0.61		A/W
		λ = 900 nm		0.69		A/W
t <sub>R</sub>	Rise time	V <sub>R</sub> = 150 V; λ = 905 nm; R <sub>L</sub> = 50 Ω		6		ns
	Shunt Resistance	V <sub>R</sub> = 10 mV	1000	2000		MΩ
	N.E.P.	V <sub>R</sub> = 150 V; λ = 905 nm		1.7 E-14		W/√Hz
V <sub>BR</sub>	Breakdown voltage	I <sub>R</sub> = 2 μA	300	500		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)**

**Temperature coefficient of responsivity (10 V)**

**Package dimension:**

Small quantities: 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.

**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