
**Features**

- PIN PD with 11.9 mm<sup>2</sup> active area
- High speed epitaxy
- Fast response time
- Low dark current

**Description**

High speed epitaxy PIN photodiode with 11.9 mm<sup>2</sup> square active area. Metal can type hermetic TO5 package with clear glass window.

**Application**

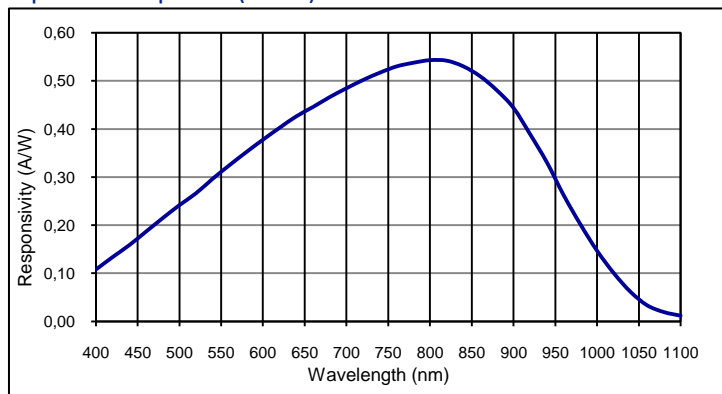
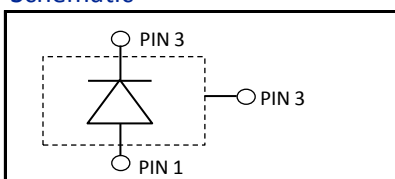
- Pulsed light detection
- High speed photometry
- High speed optical communications
- Fiber optic light monitoring

**RoHS**

2002/95/EC


**Absolute maximum ratings**

Symbol	Parameter	Min	Max	Unit
T <sub>STG</sub>	Storage temp	-55	125	°C
T <sub>OP</sub>	Operating temp	-40	100	°C
V <sub>max</sub>	Max reverse voltage		30	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		3450 x 3450			µm
	Active area		11.9			mm <sup>2</sup>
I <sub>D</sub>	Dark current	V <sub>R</sub> = 20 V		1	3	nA
C	Capacitance	V <sub>R</sub> = 0 V		180		pF
		V <sub>R</sub> = 20 V		40		pF
	Responsivity	λ = 632 nm		0.4		A/W
		λ = 800 nm		0.52		A/W
t <sub>R</sub>	Rise time	V <sub>R</sub> = 20 V; λ = 850 nm; R <sub>L</sub> = 50 Ω		3		ns
	Shunt Resistance	V <sub>R</sub> = 10 mV		100		MΩ
	N.E.P.	V <sub>R</sub> = 20 V; λ = 850 nm		3.4 E-14		W/√Hz
V <sub>BR</sub>	Breakdown voltage	I <sub>R</sub> = 2 µA	30	50		V

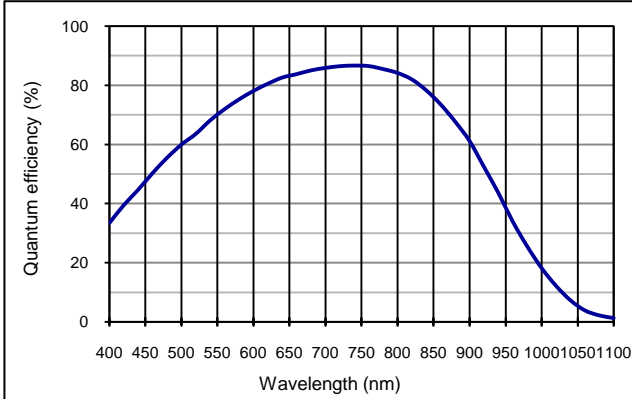
**European, International Sales:**


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

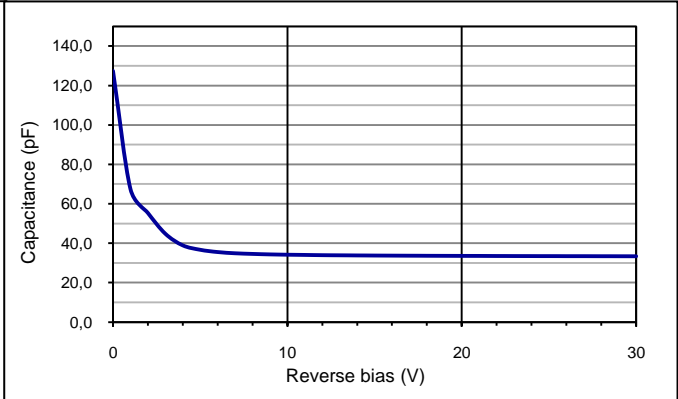
**USA:**


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

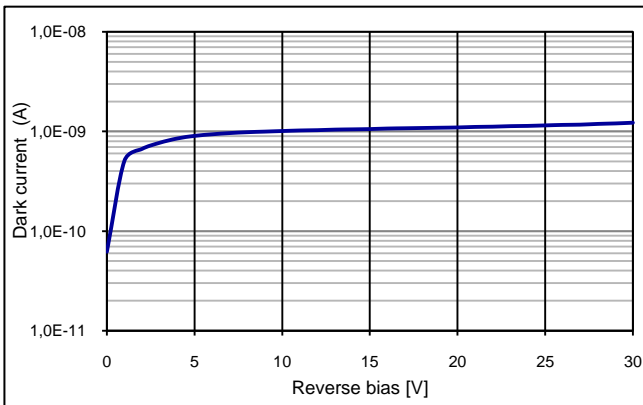
Quantum efficiency (23 °C)



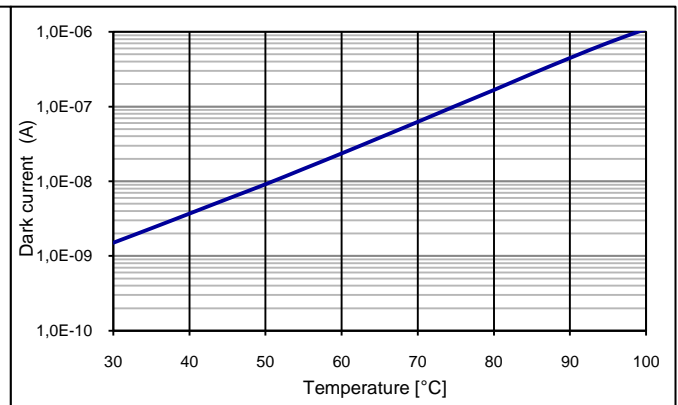
Capacitance as fct of reverse bias (23 °C)



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