
**Features**

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

**Description**

Low dark current circular active area PIN photodiode with 1 mm<sup>2</sup> active area. Metal can type hermetic TO52 package with clear glass window.

**Application**

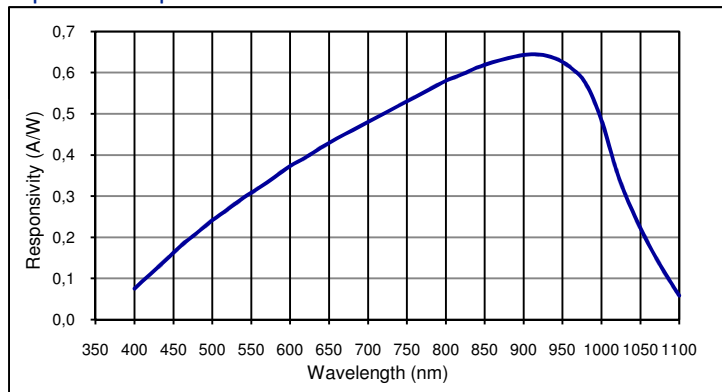
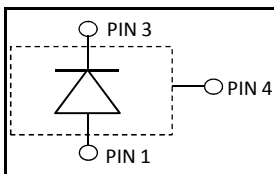
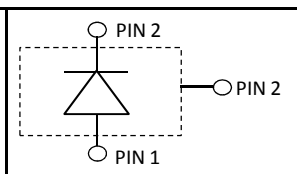
- Precision photometry
- Analytical instruments
- Medical equipment
- Pulsed light detector

**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**

**Schematic 500151**

**Schematic 500482**

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

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		diameter 1130			μm
	Active area		1			mm <sup>2</sup>
I <sub>D</sub>	Dark current	V <sub>R</sub> = 10 V		0.05		nA
C	Capacitance	V <sub>R</sub> = 0 V		20		pF
		V <sub>R</sub> = 10 V		3		pF
	Responsivity	λ = 632 nm		0.4		A/W
		λ = 900 nm		0.64		A/W
t <sub>R</sub>	Rise time	V <sub>R</sub> = 0 V; λ = 850 nm; R <sub>L</sub> = 50 Ω		2000		ns
		V <sub>R</sub> = 10 V; λ = 850 nm; R <sub>L</sub> = 50 Ω		10		ns
		V <sub>R</sub> = 80 V; λ = 850 nm; R <sub>L</sub> = 50 Ω		5		ns
	Shunt Resistance	V <sub>R</sub> = 5 mV	1000	2000		MΩ
	N.E.P.	V <sub>R</sub> = 10 V; λ = 900 nm		6.3 E-15		W/√Hz
V <sub>BR</sub>	Breakdown voltage	I <sub>R</sub> = 2 μA	30	100		V

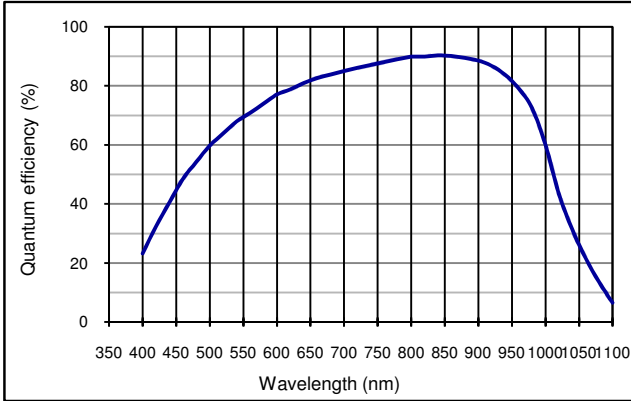
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 sales.opto@first-sensor.com

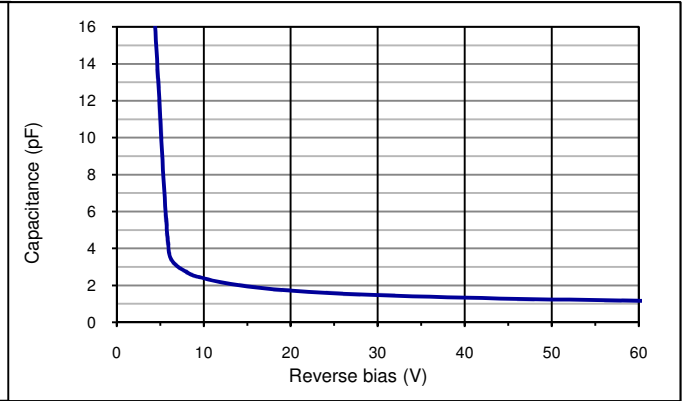
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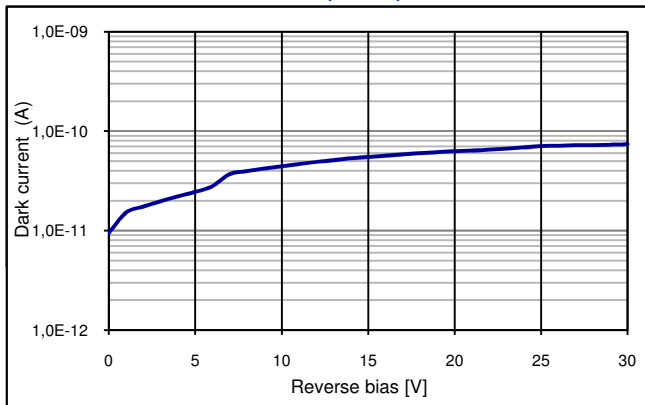
Quantum efficiency (23 °C)

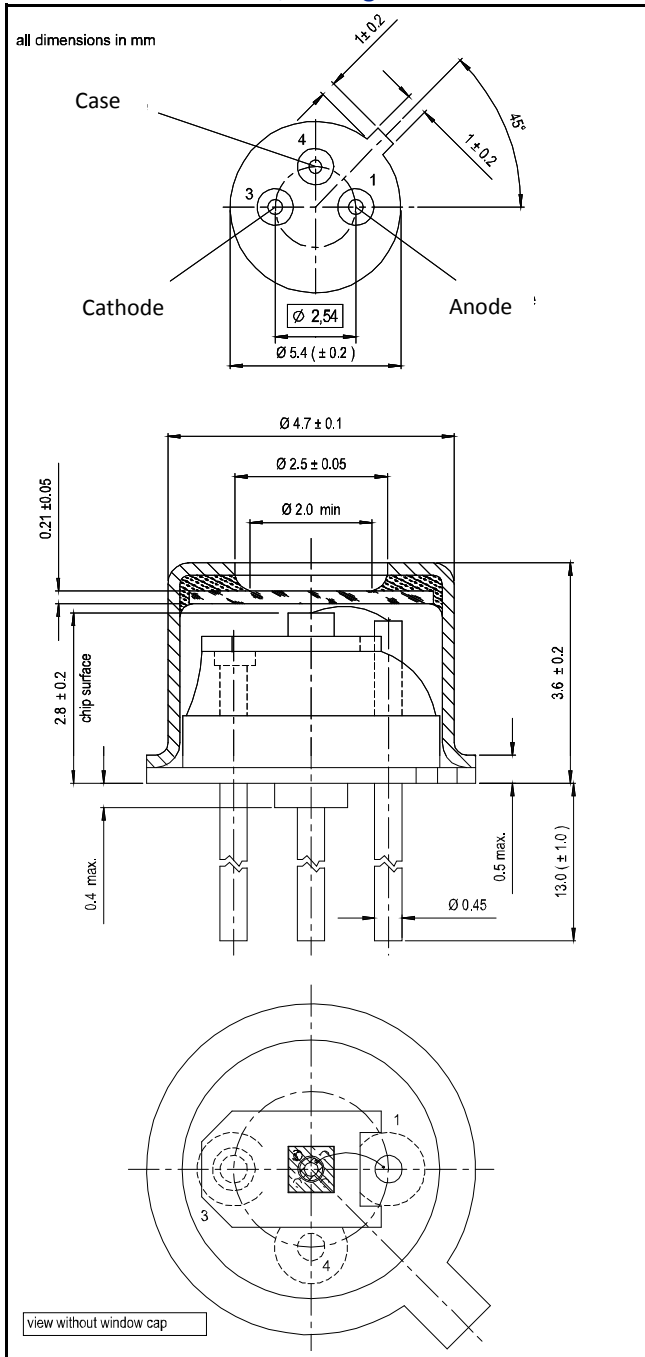
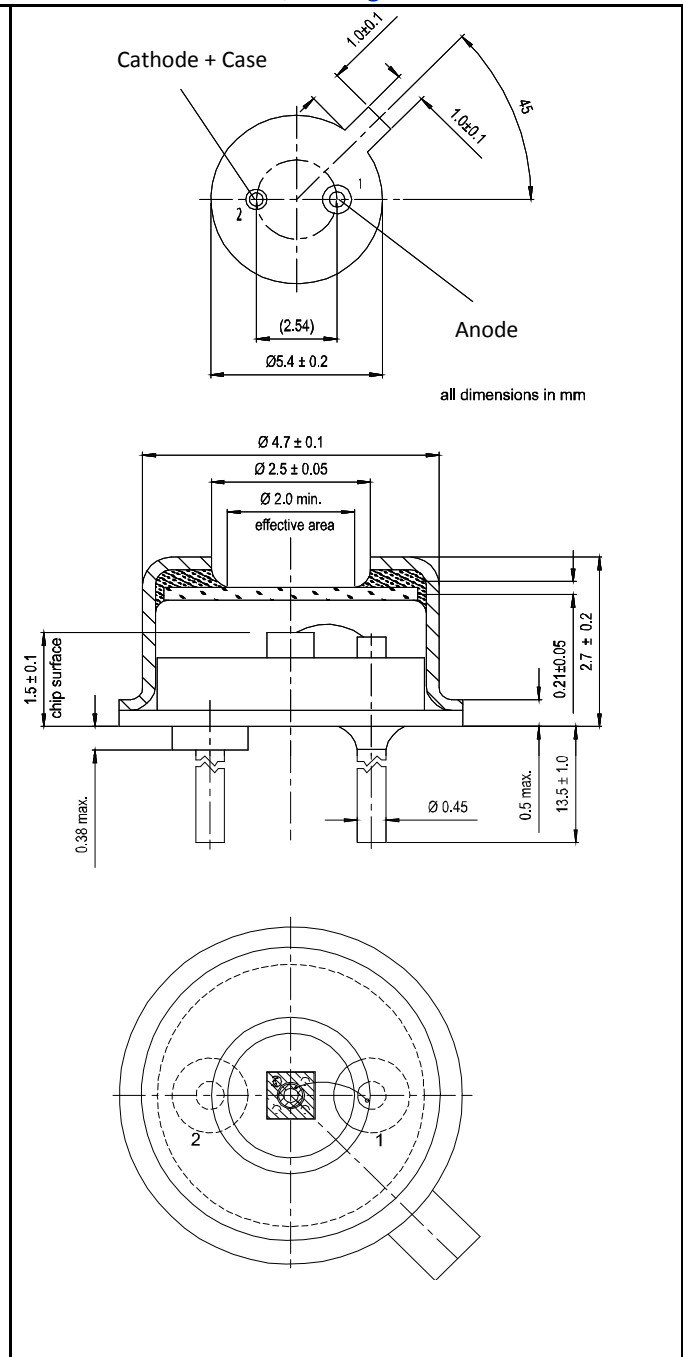


Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



**Order number 500151, Package: TO52S1**

**Order number 500482, Package: TO52S3**

**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.

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