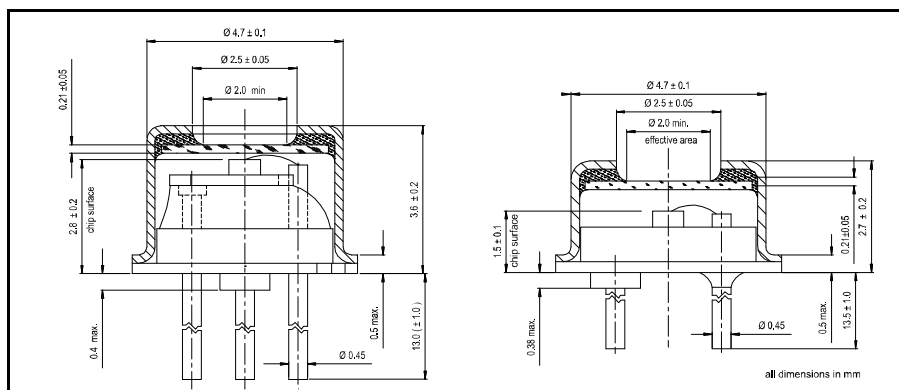
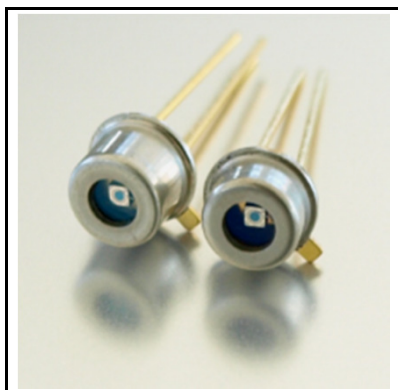




Features

- 1000 µm x 1000 µm active area
- Low dark current
- Fast response time
- High speed epitaxy
- Fully depleted at 3.5 V
- Optimized for blue light

Description

High speed epitaxy PIN photodiode with 1.0 mm² square active area. Metal can type hermetic isolated TO52 package with clear glass window. Other packaging options available upon special request.

Application

- Pulsed light detection
- High speed photometry
- High speed optical communications
- Laser monitoring

RoHS

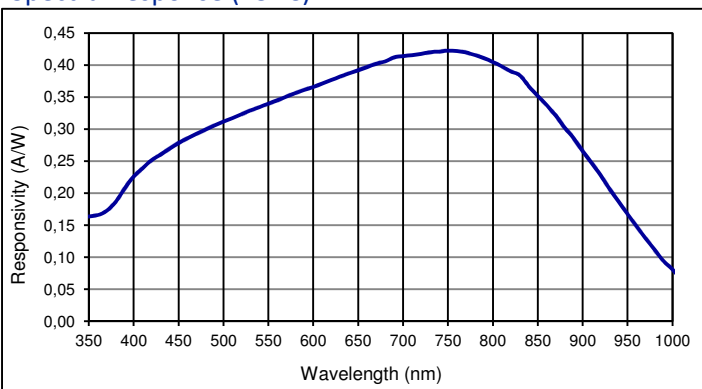
2002/95/EC



Absolute maximum ratings

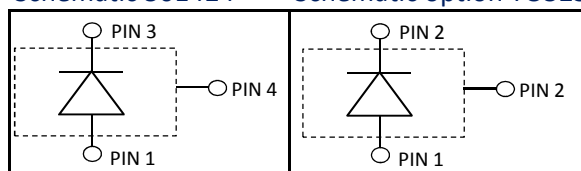
Symbol	Parameter	Min	Max	Unit
T _{STG}	Storage temp	-55	125	°C
T _{OP}	Operating temp	-40	100	°C
V _{max}	Max reverse voltage		40	V
I _{PEAK}	Peak DC current		10	mA

Spectral response (23 °C)



Schematic 501424

Schematic option TO52S3



Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		1000 x 1000			µm
	Active area		1.0			mm ²
I _D	Dark current	V _R = 0 V		0.005	0.025	nA
		V _R = 3.5 V		0.01	0.05	nA
C	Capacitance	V _R = 0 V		20	30	pF
		V _R = 3.5 V		8.5	10	pF
	Responsivity	λ = 355 nm		0.16		A/W
		λ = 405 nm		0.23		A/W
t _R	Rise time	V _R = 3.5 V; λ = 405 nm; R _L = 50 Ω		1.3		ns
		V _R = 20 V; λ = 405 nm; R _L = 50 Ω		1.0		ns
V _{BR}	Breakdown voltage	I _R = 2 µA	40			V
	Shunt resistance	V _R = 10 mV		2000		MΩ
	N.E.P.	V _R = 3.5 V; λ = 405 nm		8 E-15		W/√Hz

European, International Sales:



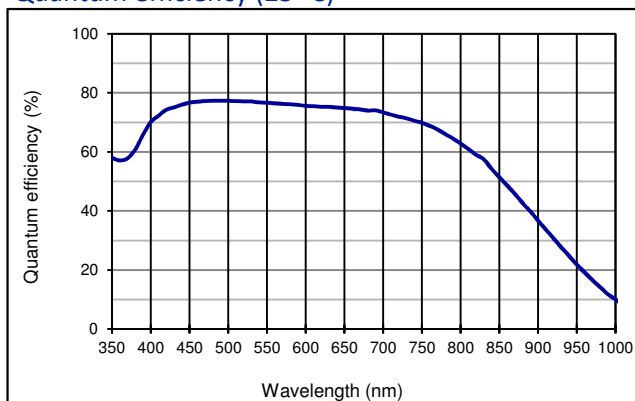
First Sensor AG
Peter-Behrens-Strasse 15
12459 Berlin
Germany
T +49 30 6399 2399
F +49 30 639923-752
sales.opto@first-sensor.com

USA:

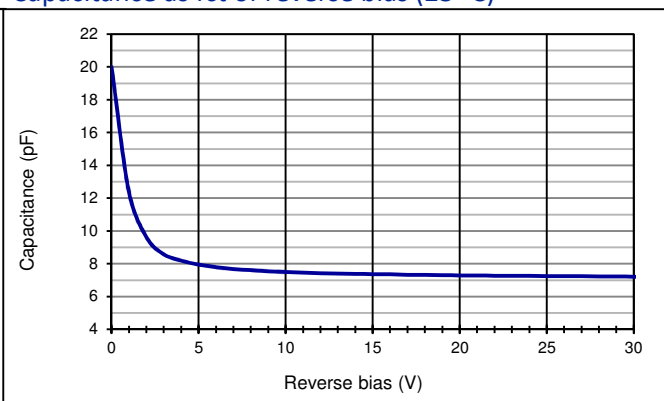


First Sensor Inc.
5700 Corsa Avenue #105
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F +1 818 889 7053
sales.us@first-sensor.com

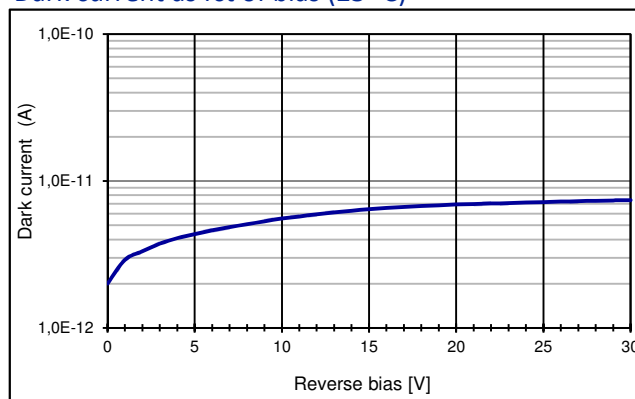
Quantum efficiency (23 °C)



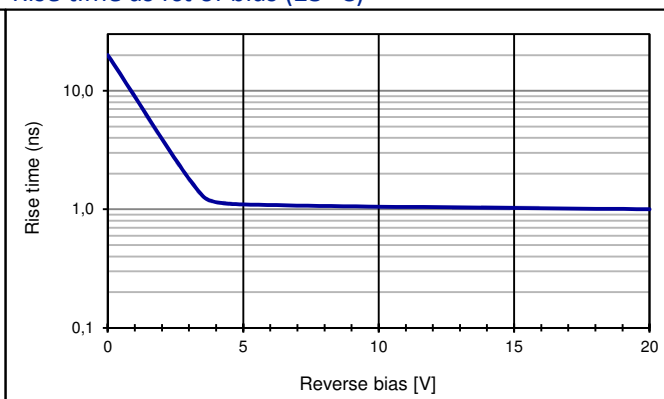
Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



Rise time as fct of bias (23 °C)



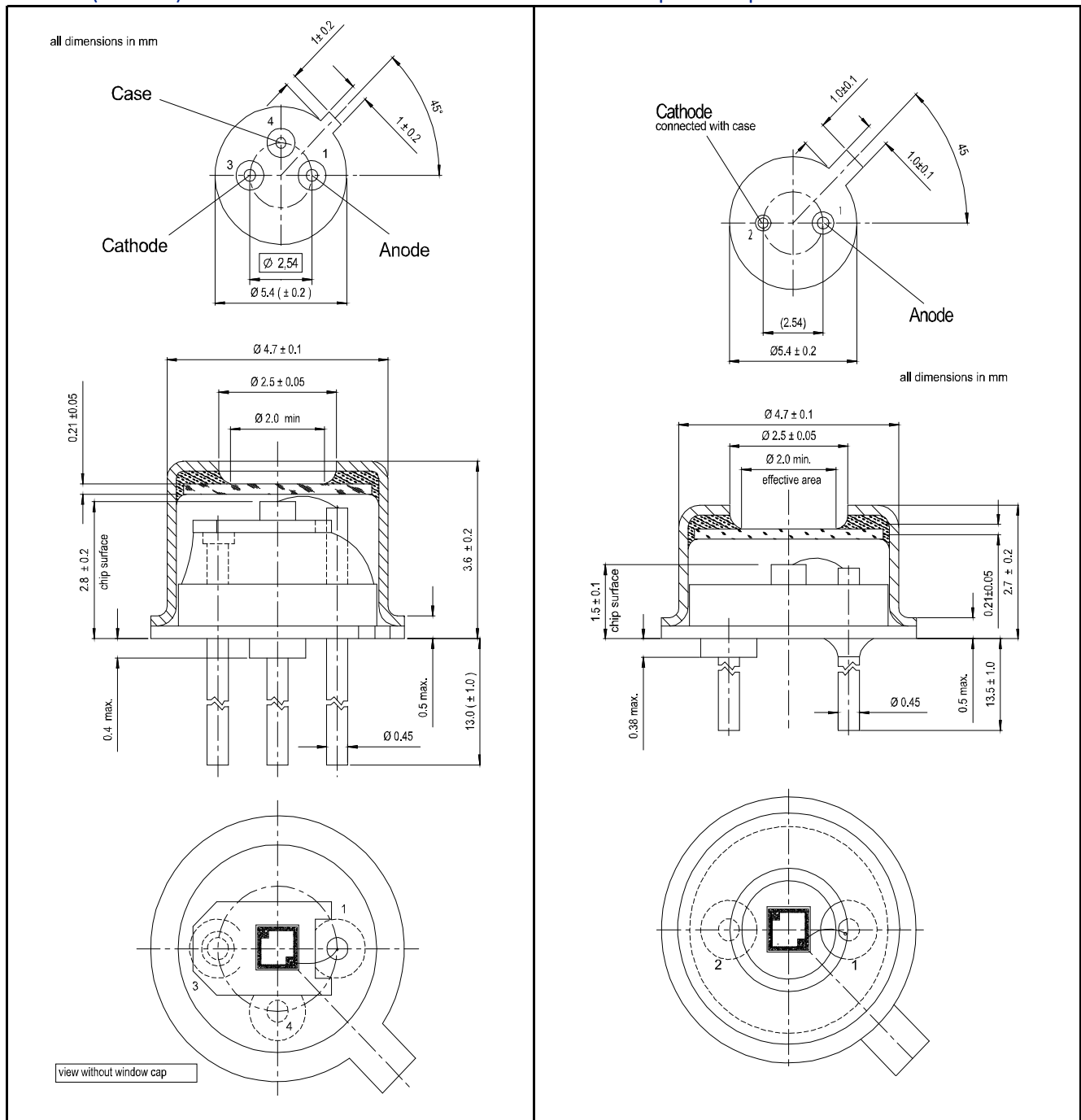
Application hints:

Please refer to document "Instructions for handling and processing"

Technical Drawing

TO52S1 (isolated) # 501424

TO52S3 on special request



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