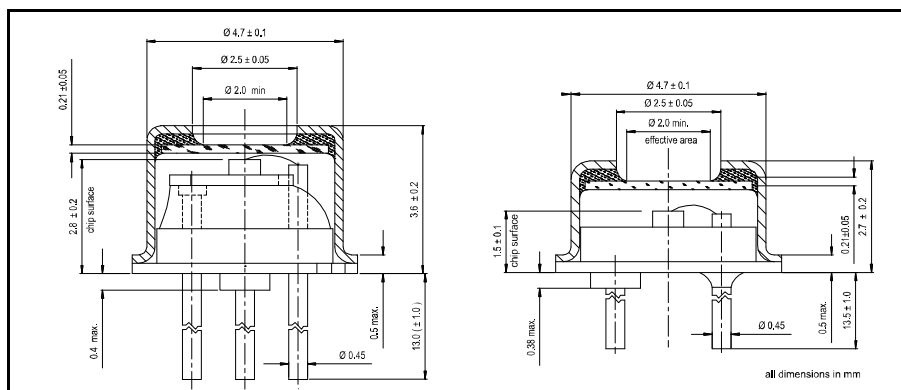
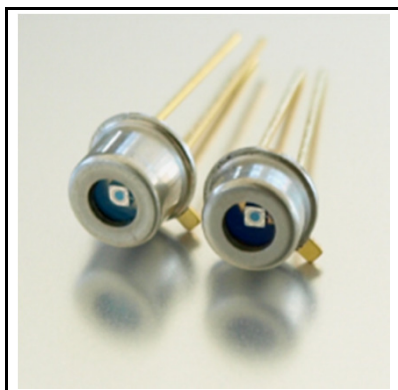




Features

- 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

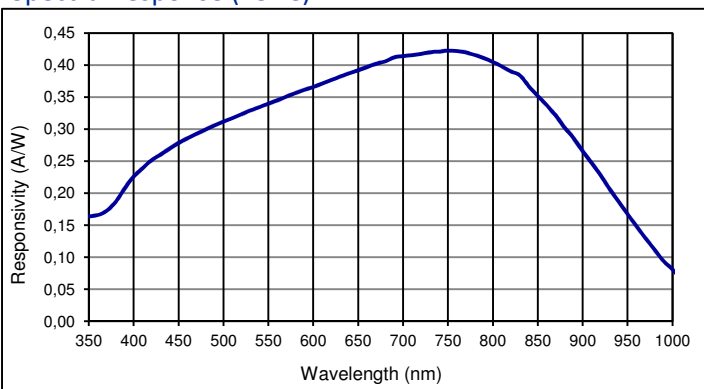
2002/95/EC



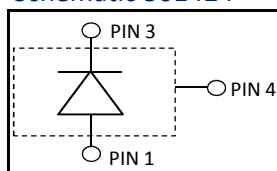
Absolute maximum ratings

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

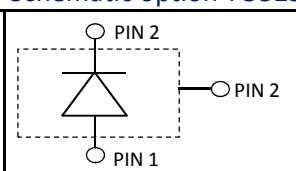
Spectral response (23 °C)



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	$V_R = 0\text{ V}$		0.005	0.025	nA
		$V_R = 3.5\text{ V}$		0.01	0.05	nA
C	Capacitance	$V_R = 0\text{ V}$		20	30	pF
		$V_R = 3.5\text{ V}$		8.5	10	pF
	Responsivity	$\lambda = 355\text{ nm}$		0.16		A/W
		$\lambda = 405\text{ nm}$		0.23		A/W
t_R	Rise time	$V_R = 3.5\text{ V}; \lambda = 405\text{ nm}; R_L = 50\ \Omega$		1.3		ns
		$V_R = 20\text{ V}; \lambda = 405\text{ nm}; R_L = 50\ \Omega$		1.0		ns
V_{BR}	Breakdown voltage	$I_R = 2\ \mu\text{A}$	40			V
	Shunt resistance	$V_R = 10\text{ mV}$		2000		M Ω
	N.E.P.	$V_R = 3.5\text{ V}; \lambda = 405\text{ nm}$		8 E-15		W/ $\sqrt{\text{Hz}}$

European, International Sales:

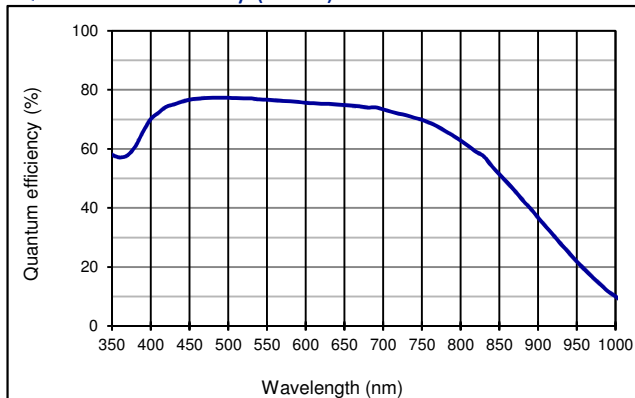
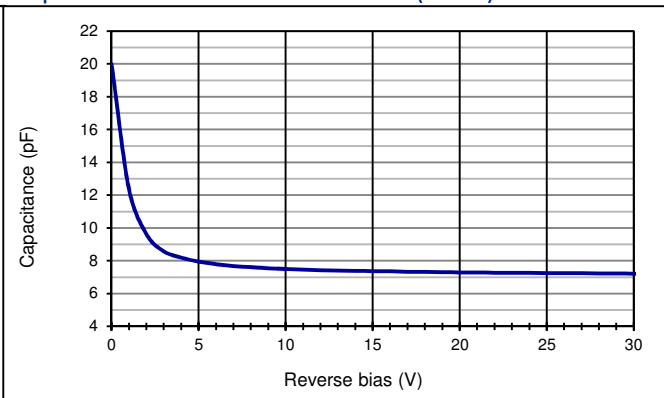
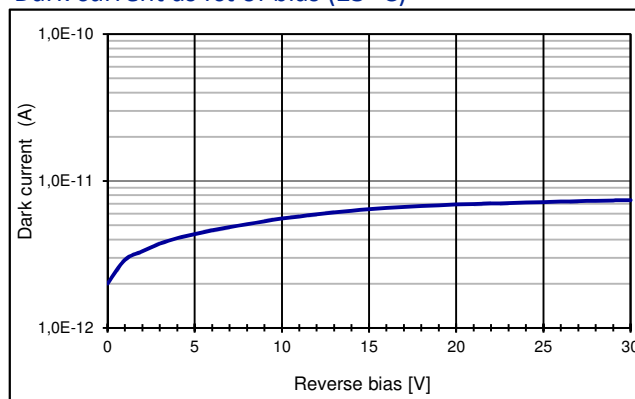
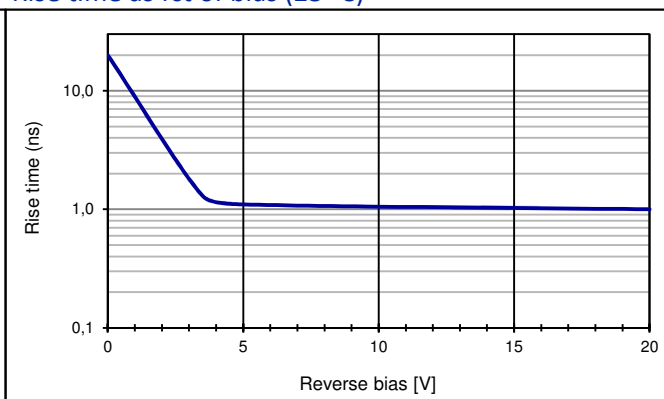


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Quantum efficiency (23 °C)

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"

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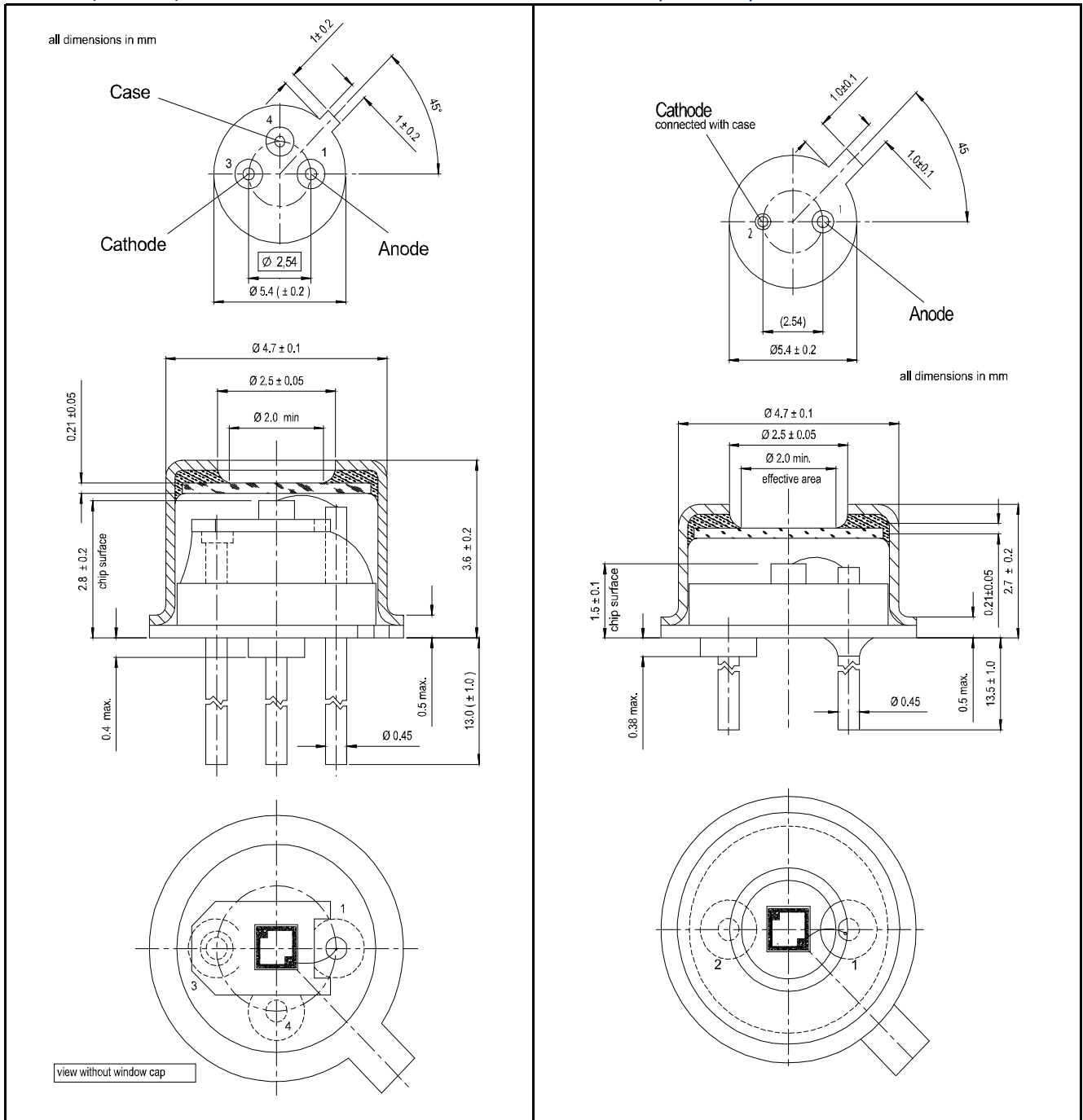


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Technical Drawing

TO52S1 (isolated) # 501424

TO52S3 on special request



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