

PS13-6B TO

Description

Blue-green enhanced square active area PIN photodiode with 13 mm² active area. Metal can type hermetic TO5 package with UV clear glass window.

Features

- 13 mm² PIN detector
- High sensitivity
- High shunt resistance
- Blue-green enhanced

Applications

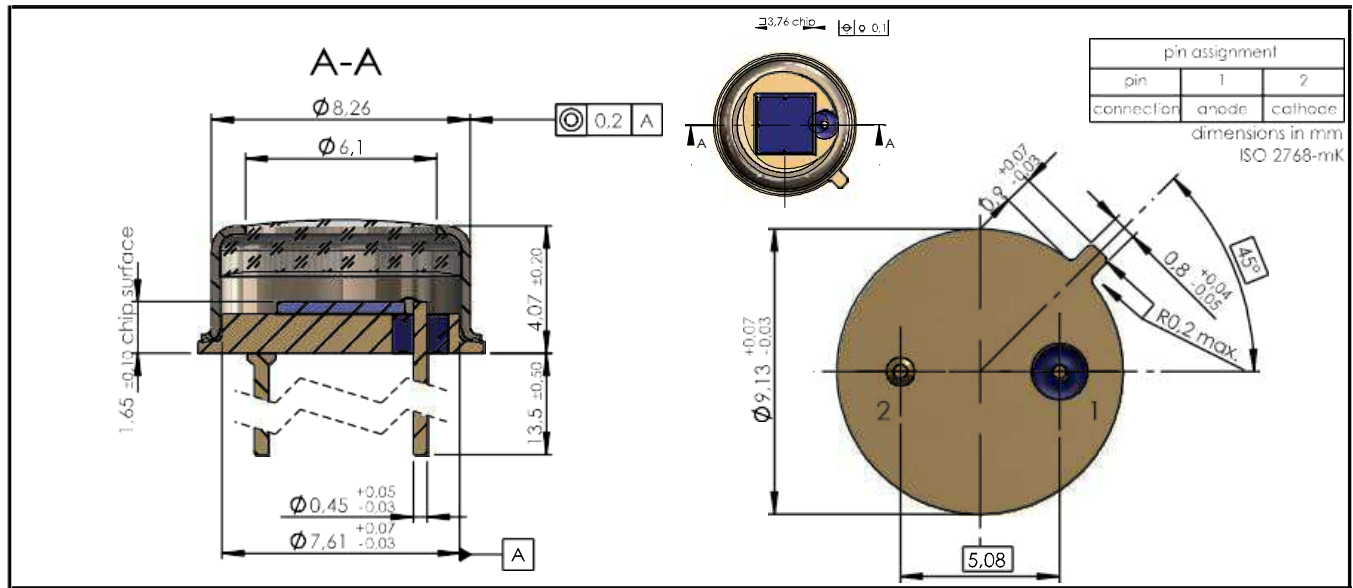
- Precision photometry
- Analytical instruments
- Medical equipment
- Fluorescence detector

RoHS

2011/65/EU

2015/863/EU

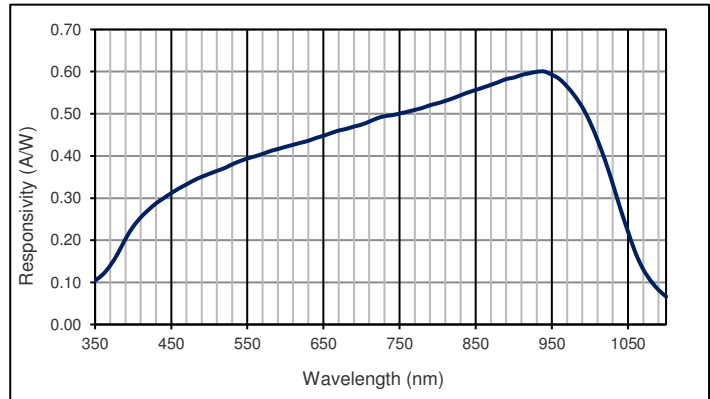
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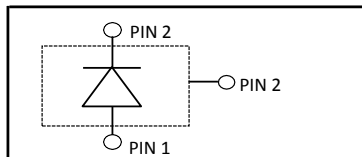
Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-55	125	°C
T_{OP}	Operating temp	-40	100	°C
V_{max}	Max reverse voltage		20	V
I_{PEAK}	Peak DC current		10	mA

Spectral response (23 °C)



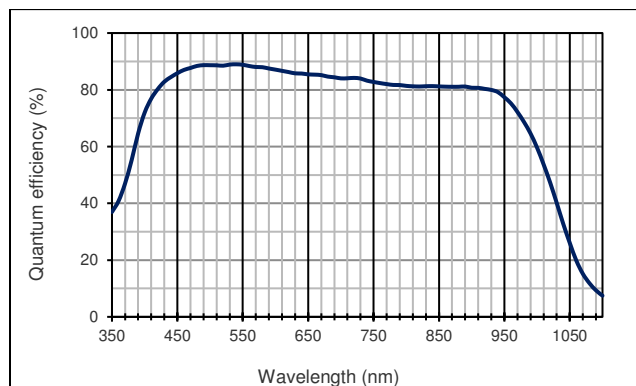
Schematic



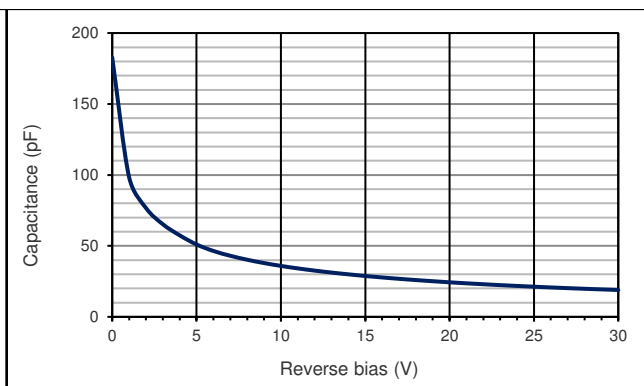
Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test	Min	Typ	Max	Unit
	Active area		3504 x 3504			μm
	Active area		13			mm ²
I_D	Dark current	$V_R = 5$ V		0.25	10	nA
C	Capacitance	$V_R = 0$ V		180		pF
		$V_R = 5$ V		50		pF
	Responsivity	$\lambda = 410$ nm		0.22		A/W
		$\lambda = 550$ nm		0.37		A/W
t_R	Rise time	$V_R = 0$ V; $\lambda = 410$ nm; $R_L = 50$ Ω		140		ns
		$V_R = 5$ V; $\lambda = 410$ nm; $R_L = 50$ Ω		70		ns
	Shunt Resistance	$V_R = 5$ mV		200		M Ω
	N.E.P.	$V_R = 5$ V; $\lambda = 410$ nm		4 E-14		W/√Hz
V_{BR}	Breakdown voltage	$I_R = 2$ μA	20	30		V

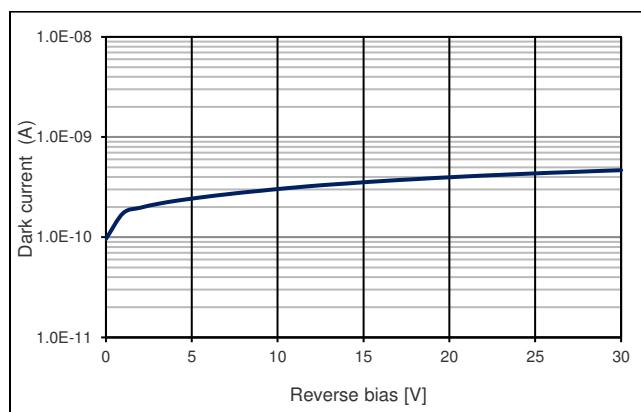
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



Optical inspection

Optical inspection according to failure catalogue for optical sensors FK INS 201.

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.

Ordering information (standard configurations)

Description	TE Part Number	MPQ
PS13-6b TO (TO5)	3001225-F	1000 pcs

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Version # 07/2022

