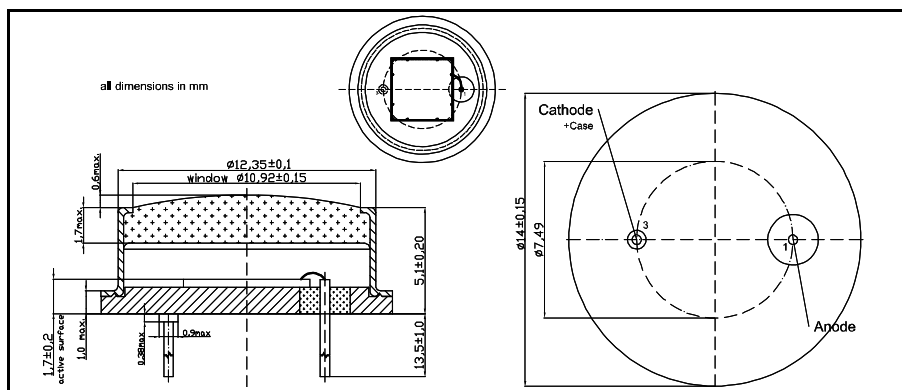




### Features

- 33 mm<sup>2</sup> PIN detector
- High speed epitaxy
- Fast response time
- Low dark current

### Description

High speed epitaxy square active area PIN photodiode with 33 mm<sup>2</sup> active area. Metal can type hermetic TO8 package with clear glass window.

### Application

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

### RoHS

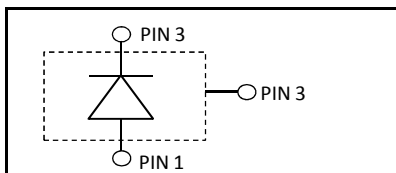
2002/95/EC



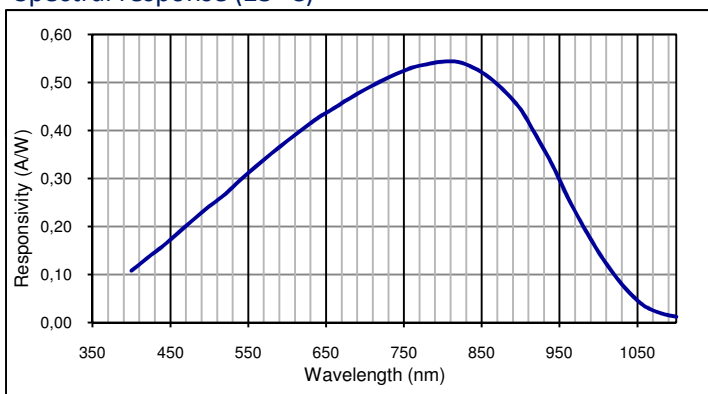
### Absolute maximum ratings

| 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 |     | 20  | V    |
| I <sub>PEAK</sub> | Peak DC current     |     | 10  | mA   |

### Schematic



### Spectral response (23 °C)



### Electro-optical characteristics @ 23 °C

| Symbol          | Characteristic    | Test Condition                                           | Min         | Typ      | Max | Unit            |
|-----------------|-------------------|----------------------------------------------------------|-------------|----------|-----|-----------------|
|                 | Active area       |                                                          | 5694 x 5694 |          |     | μm              |
|                 | Active area       |                                                          | 33          |          |     | mm <sup>2</sup> |
| I <sub>D</sub>  | Dark current      | V <sub>R</sub> = 20 V                                    |             | 2        | 10  | nA              |
| C               | Capacitance       | V <sub>R</sub> = 0 V                                     |             | 325      |     | pF              |
|                 |                   | V <sub>R</sub> = 20 V                                    |             | 90       |     | 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 |             | 4        |     | ns              |
|                 | Shunt Resistance  | V <sub>R</sub> = 10 mV                                   |             | 50       |     | MΩ              |
|                 | N.E.P.            | V <sub>R</sub> = 20 V; λ = 850 nm                        |             | 4.9 E-14 |     | W/√Hz           |
| V <sub>BR</sub> | Breakdown voltage | I <sub>R</sub> = 2 μA                                    | 30          | 50       |     | V               |

#### European, International Sales:



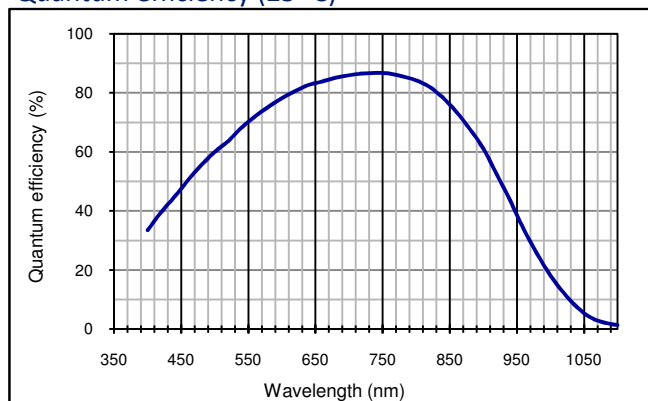
First Sensor AG  
Peter-Behrens-Strasse 15  
12459 Berlin  
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Phone: +49-30-6399-2399  
Fax: +49-30-6399-23752  
E-Mail: sales.opto@first-sensor.com

#### USA:

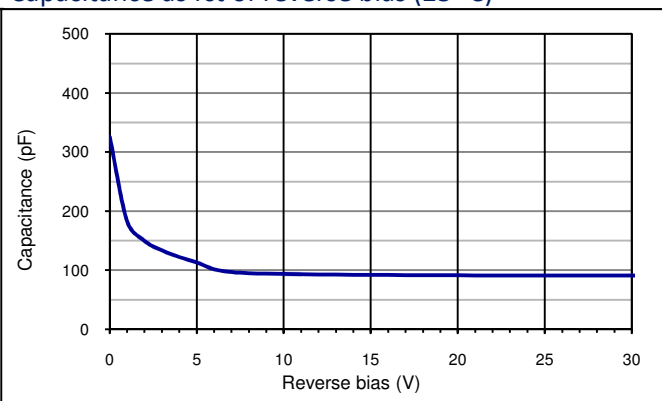


Pacific Silicon Sensor, Inc.  
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Fax: +1-818-889-7053  
E-Mail: sales@pacific-sensor.com

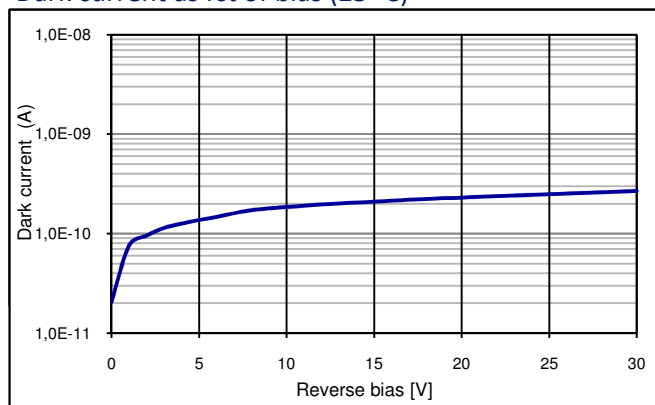
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



### 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.

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