

Features

- 100 mm² PIN detector
- Light blocking encapsulant
- Low dark current
- Low capacitance
- High shunt resistance
- High sensitivity

Description

Square active area PIN photodiode with 100 mm² active area. Ceramic carrier type LCC10 package with light blocking black epoxy encapsulant. Reflow solderable. Non-hermetic.

Application

- Ionizing radiation detector
- Medical equipment
- Personal dosimeter

RoHS

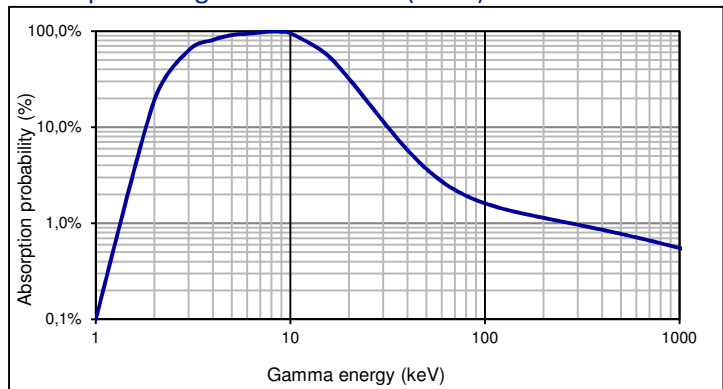
2002/95/EC



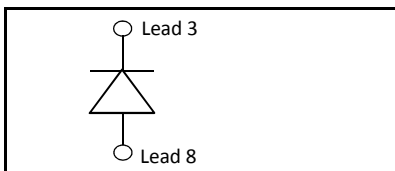
Absolute maximum ratings

| Symbol | Parameter | Min | Max | Unit |
|-------------------|---------------------|-----|-----|------|
| T _{STG} | Storage temp | -40 | 100 | °C |
| T _{OP} | Operating temp | -20 | 70 | °C |
| V _{max} | Max reverse voltage | | 50 | V |
| I _{PEAK} | Peak DC current | | 10 | mA |

Absorption of gamma radiation (23 °C)



Schematic



Electro-optical characteristics @ 23 °C

| Symbol | Characteristic | Test Condition | Min | Typ | Max | Unit |
|----------------------------------|--------------------------------------|--|---------|----------|------|-----------------|
| | Active area | | 10 x 10 | | | mm |
| | Active area | | 100 | | | mm ² |
| | Energy range of detectable radiation | Gamma radiation | 5 | | 1000 | keV |
| I _D | Dark current | V _R = 12 V | | 1.5 | 3 | nA |
| T _K (I _D) | Temperature coefficient | V _R = 12 V; change of dark current | | 13 | | %/K |
| C | Capacitance | V _R = 0 V; f = 10 kHz | | 500 | | pF |
| | | V _R = 12 V; f = 10 kHz | | 80 | | pF |
| t _R | Rise time | V _R = 12 V; E = 10 keV; R _L = 50 Ω | | | 500 | ns |
| | Shunt Resistance | V _R = 10 mV | | 40 | | MΩ |
| | Noise current | V _R = 12 V | | 6.1 E-14 | | A/√Hz |
| V _{BR} | Breakdown voltage | I _R = 2 μA | 50 | 80 | | V |

European, International Sales:



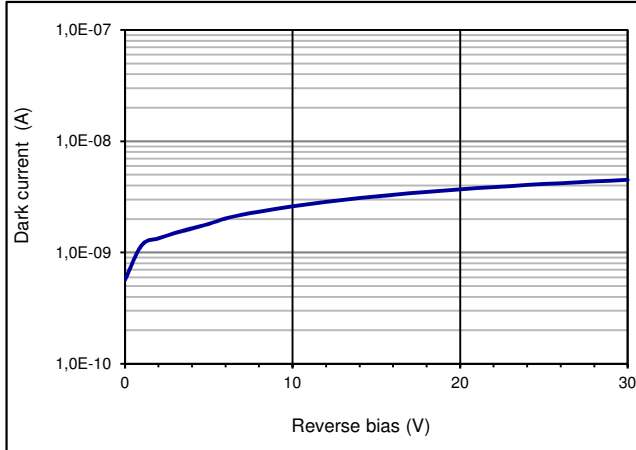
First Sensor AG
 Peter-Behrens-Strasse 15
 12459 Berlin
 Germany
 T +49 30 6399 2399
 F +49 30 639923-752
 sales.opto@first-sensor.com

USA:

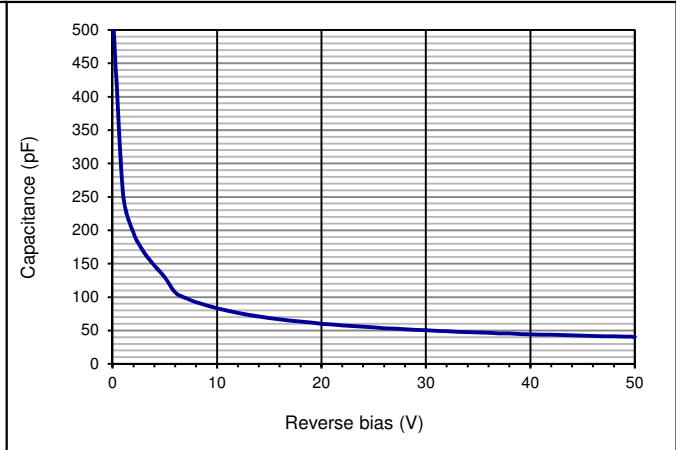


First Sensor Inc.
 5700 Corsa Avenue #105
 Westlake Village
 CA 91362 USA
 T +1 818 706 3400
 F +1 818 889 7053
 sales.us@first-sensor.com

Dark current (23 °C)



Capacitance as fct of reverse 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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 Germany
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 F +1 818 889 7053
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