

Features

- 100 mm² PIN detector
- Low dark current
- High shunt resistance
- High sensitivity

Description

Low dark current PIN photodiode with 100 mm² square active area. Non-hermetic ceramic carrier package with glass window. Epoxy or silicone potting on special request.

Application

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

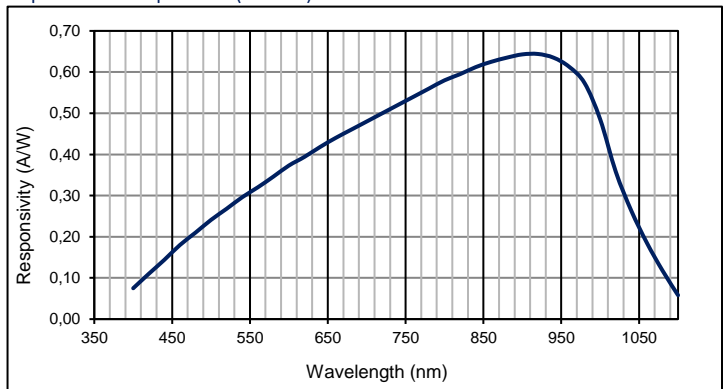
RoHS

2011/65/EU

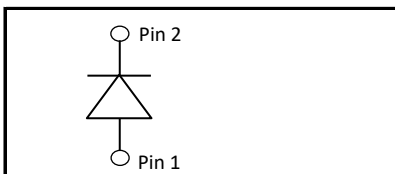
Absolute maximum ratings

| Symbol | Parameter | Min | Max | Unit |
|-------------------|---------------------|-----|-----|------|
| T _{STG} | Storage temp | -40 | 125 | °C |
| T _{OP} | Operating temp | -40 | 100 | °C |
| V _{max} | Max reverse voltage | | 50 | V |
| I _{PEAK} | Peak DC current | | 10 | mA |

Spectral response (23 °C)



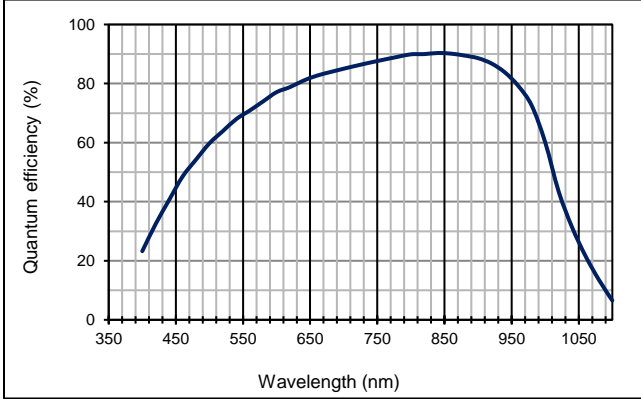
Schematic



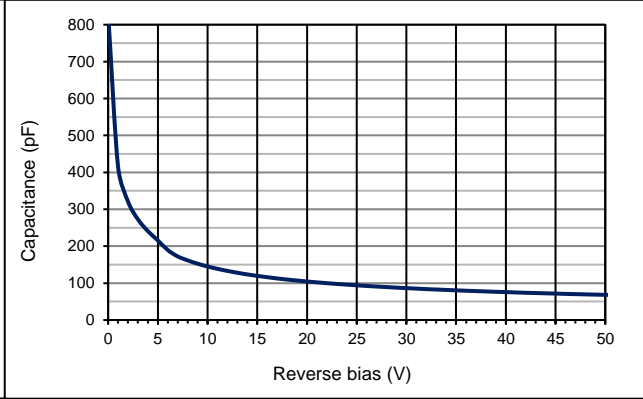
Electro-optical characteristics @ 23 °C

| Symbol | Characteristic | Test Condition | Min | Typ | Max | Unit |
|-----------------|-------------------|--|---------------|----------|-----|-----------------|
| | Active area | | 10000 x 10000 | | | μm |
| | Active area | | 100 | | | mm ² |
| I _D | Dark current | V _R = 10 V | | 1 | 10 | nA |
| C | Capacitance | V _R = 0 V | | 900 | | pF |
| | | V _R = 10 V | | 160 | | pF |
| | Responsivity | λ = 632 nm | | 0.4 | | A/W |
| | | λ = 900 nm | | 0.64 | | A/W |
| t _R | Rise time | V _R = 0 V; λ = 850 nm; R _L = 50 Ω | | 2000 | | ns |
| | | V _R = 10 V; λ = 850 nm; R _L = 50 Ω | | 40 | | ns |
| | | V _R = 80 V; λ = 850 nm; R _L = 50 Ω | | 10 | | ns |
| | Shunt Resistance | V _R = 10 mV | | 150 | | MΩ |
| | N.E.P. | V _R = 10 V; λ = 900 nm | | 2.8 E-14 | | W/√Hz |
| V _{BR} | Breakdown voltage | I _R = 2 μA | 50 | | | V |

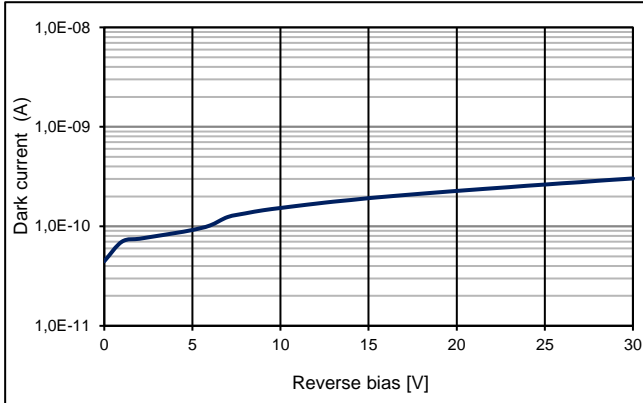
Quantum efficiency (23 °C)



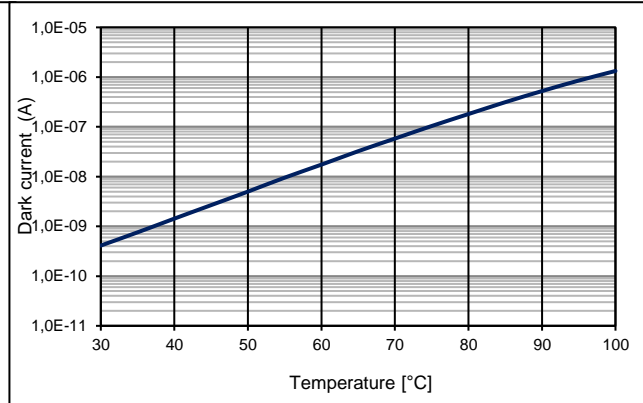
Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



Dark current as fct of temperature (10 V)



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.