

Features

- 100 mm² PSD
- Dual-axis, duo-lateral
- High position resolution
- High NIR sensitivity

Description

Square active area position sensing PIN photodiode with 100 mm² active area. Ceramic carrier type non-hermetic package with clear glass window.

Application

- Laser positioning
- Precision photometry
- Instrumentation
- Medical equipment
- Pulsed light sensor

RoHS

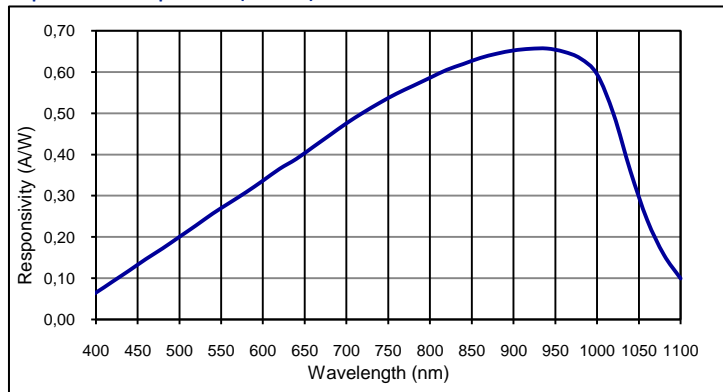
2002/95/EC



Absolute maximum ratings

| Symbol | Parameter | Min | Max | Unit |
|-------------------|---------------------|-----|-----|------|
| T _{STG} | Storage temp | -20 | 80 | °C |
| T _{OP} | Operating temp | -20 | 60 | °C |
| V _{max} | Max reverse voltage | 20 | | V |
| I _{PEAK} | Peak DC current | | 10 | mA |

Spectral response (23 °C)



Electro-optical characteristics @ 23 °C

| Symbol | Characteristic | Test Condition | Min | Typ | Max | Unit |
|-----------------|---------------------------|--|---------|------|-----|-----------------|
| | Active area | | 10 x 10 | | | mm |
| | Active area | | 100.0 | | | mm ² |
| I _D | Dark current | V _R = 10 V | | 80 | 300 | nA |
| C | Capacitance | V _R = 0 V | | 225 | | pF |
| | | V _R = 10 V | | 75 | | pF |
| | Responsivity | λ = 633 nm | | 0.4 | | A/W |
| | | λ = 850 nm | | 0.62 | | A/W |
| t _R | Rise time | V _R = 10 V; λ = 865 nm; R _L = 50 Ω | | 4000 | | ns |
| | Interelectrode Resistance | E = 0 lx | | 12 | | kΩ |
| | Noise lim. resolution | λ = 632 nm; P = 0.5 μW, spot dia. 0.5 mm | | 0.2 | | μm |
| | Position detection error | λ = 632 nm; P = 0.5 μW, spot dia. 0.5 mm | | ± 1 | | % |
| V _{BR} | Breakdown voltage | I _R = 2 μA | | 30 | | V |

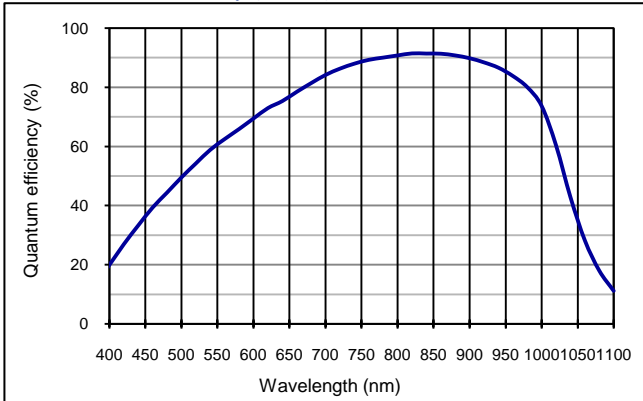
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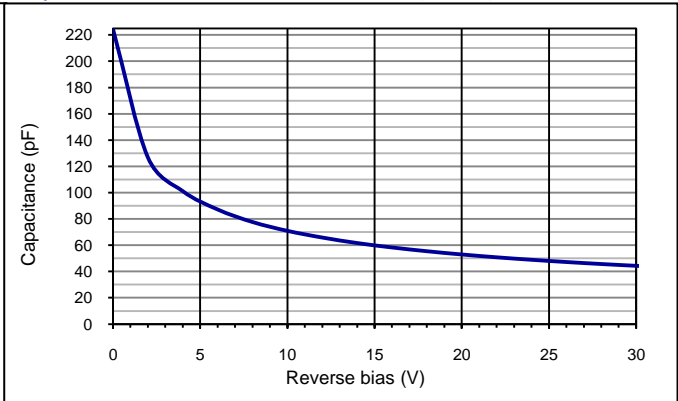
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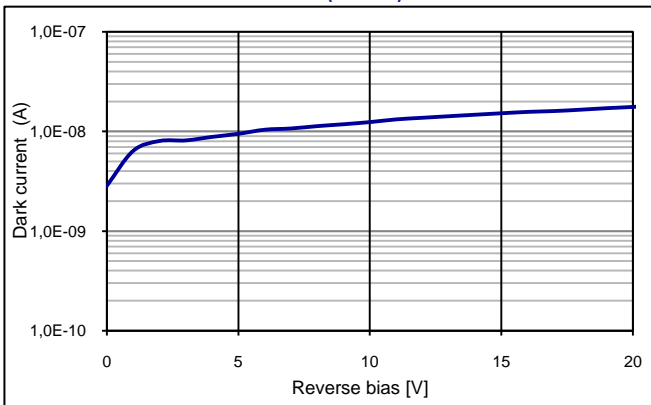
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



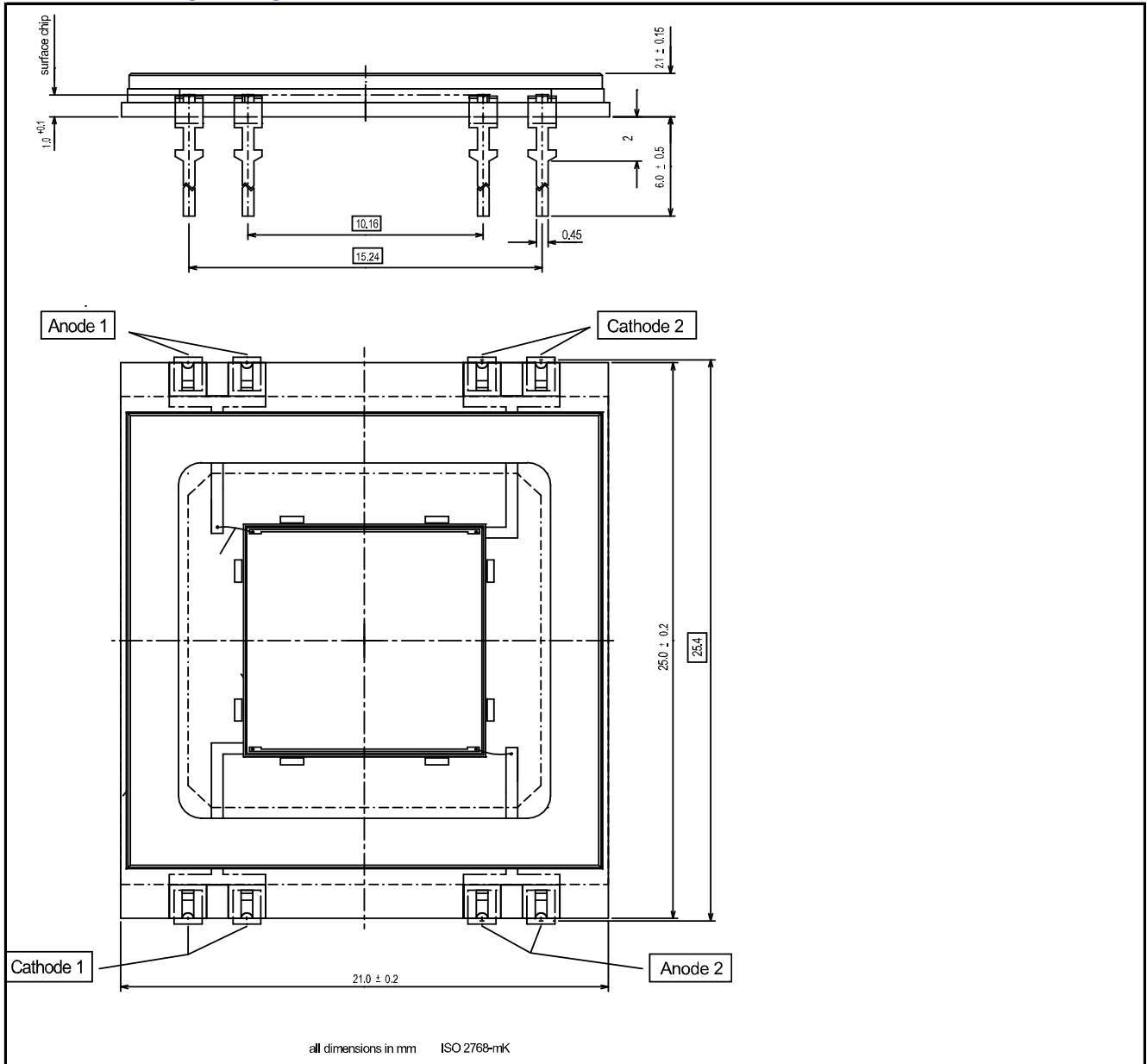
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Technical Drawing, Package: CERsmd



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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