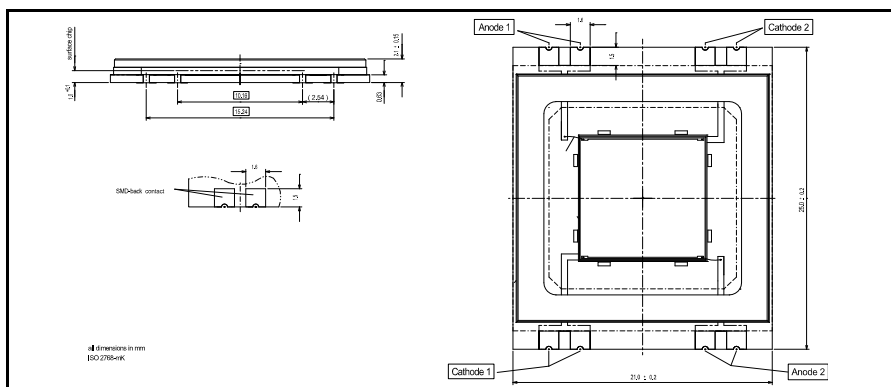
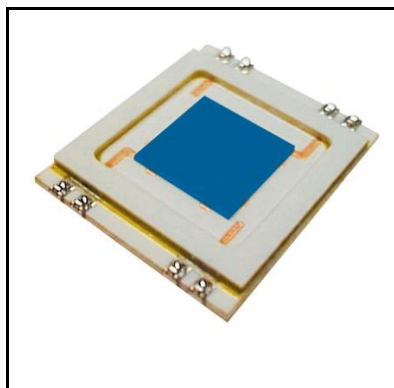




## Features

- 100 mm<sup>2</sup> PSD
- Dual-axis, duo-lateral
- High position resolution
- High NIR sensitivity

### Description

Square active area position sensing PIN photodiode with 100 mm<sup>2</sup> active area. Ceramic carrier type non-hermetic package with clear glass window.

## Application

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

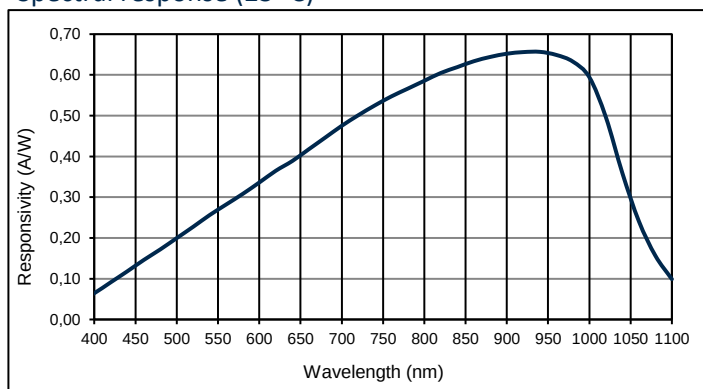
## RoHS

2011/65/EU

### Absolute maximum ratings

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

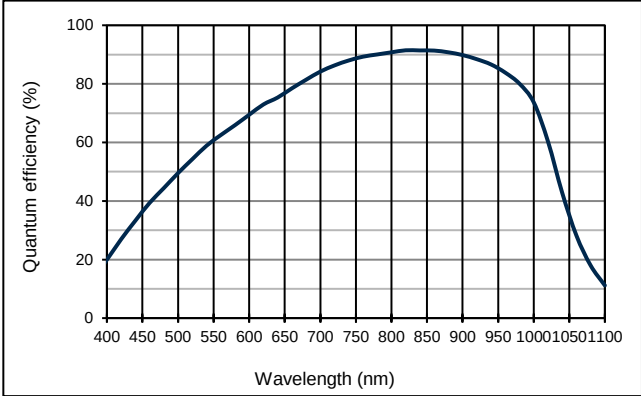
Spectral response (23 °C)



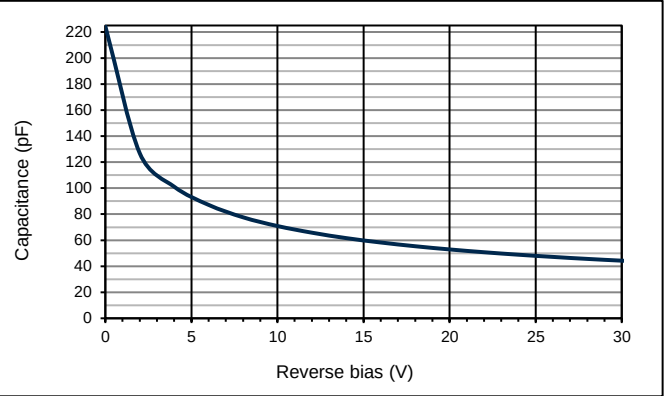
### Electro-optical characteristics @ 23 °C

| Symbol          | Characteristic            | Test Condition                                           | Min     | Typ  | Max | Unit            |
|-----------------|---------------------------|----------------------------------------------------------|---------|------|-----|-----------------|
|                 | Active area               |                                                          | 10 x 10 |      |     | mm              |
|                 | Active area               |                                                          | 100.0   |      |     | mm <sup>2</sup> |
| I <sub>D</sub>  | Dark current              | V <sub>R</sub> = 10 V                                    |         | 80   | 300 | nA              |
| C               | Capacitance               | V <sub>R</sub> = 0 V                                     |         | 225  |     | pF              |
|                 |                           | V <sub>R</sub> = 10 V                                    |         | 75   |     | pF              |
|                 | Responsivity              | λ = 633 nm                                               |         | 0.4  |     | A/W             |
|                 |                           | λ = 850 nm                                               |         | 0.62 |     | A/W             |
| t <sub>R</sub>  | Rise time                 | V <sub>R</sub> = 10 V; λ = 865 nm; R <sub>L</sub> = 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 <sub>BR</sub> | Breakdown voltage         | I <sub>R</sub> = 2 μA                                    |         | 30   |     | V               |

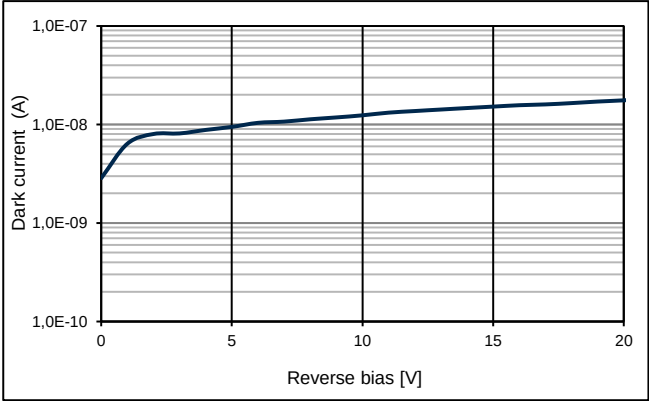
Quantum efficiency (23 °C)



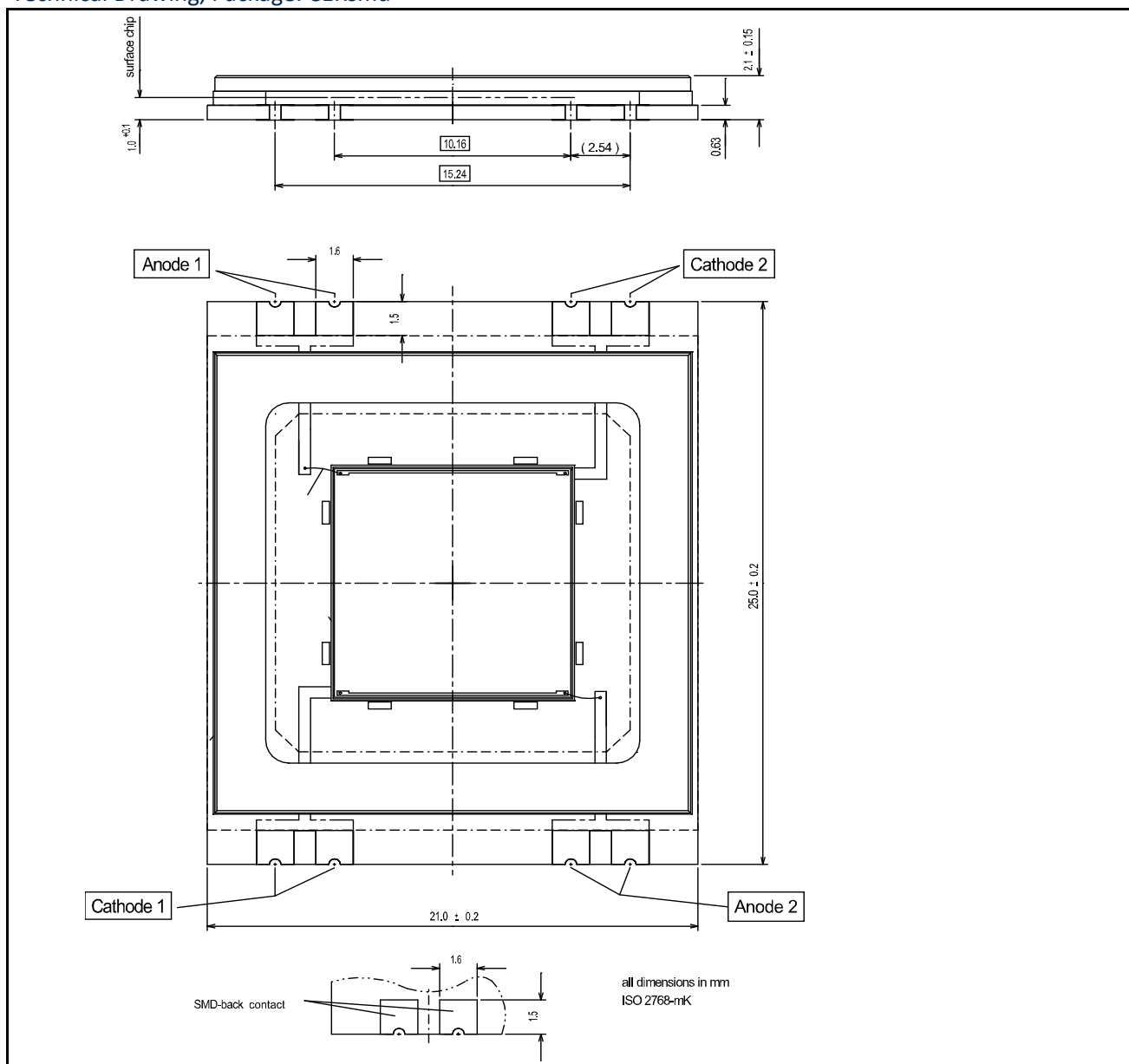
Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



## 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.