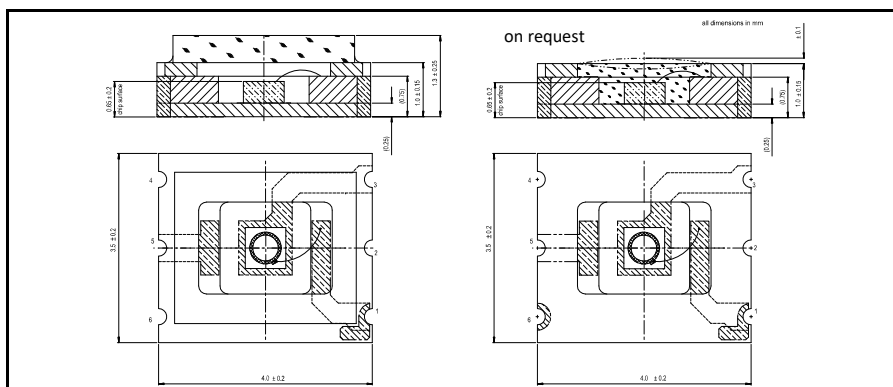




## Features

- InGaAs technology
- 0.7 mm<sup>2</sup> PIN detector
- High sensitivity up to 1700 nm
- Low dark current

## Description

Low dark current InGaAs PIN photodiode with circular 0.7 mm<sup>2</sup> active area. Ceramic carrier type non hermetic SMD package with clear glass window; silicone potting on request. Reflow solderable.

## Application

- Precision photometry
- Analytical instruments
- Medical equipment
- Pulsed light detector
- Eyesafe laser light detector

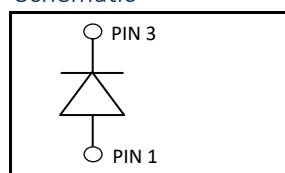
## RoHS

2011/65/EU

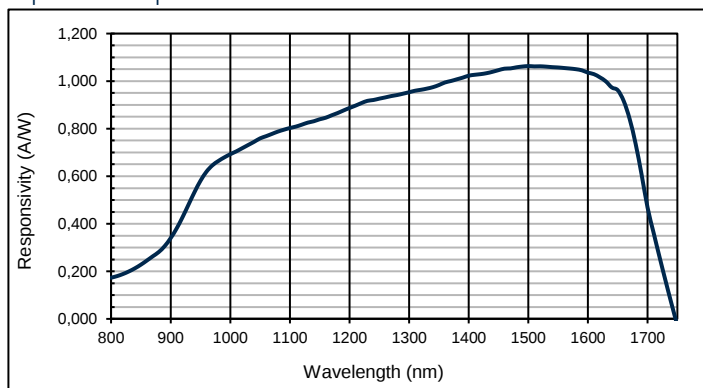
## Absolute maximum ratings

| Symbol            | Parameter           | Min | Max | Unit |
|-------------------|---------------------|-----|-----|------|
| T <sub>STG</sub>  | Storage temp        | -40 | 85  | °C   |
| T <sub>OP</sub>   | Operating temp      | -20 | 85  | °C   |
| V <sub>max</sub>  | Max reverse voltage |     | 20  | V    |
| I <sub>PEAK</sub> | Peak DC current     |     | 10  | mA   |

## Schematic



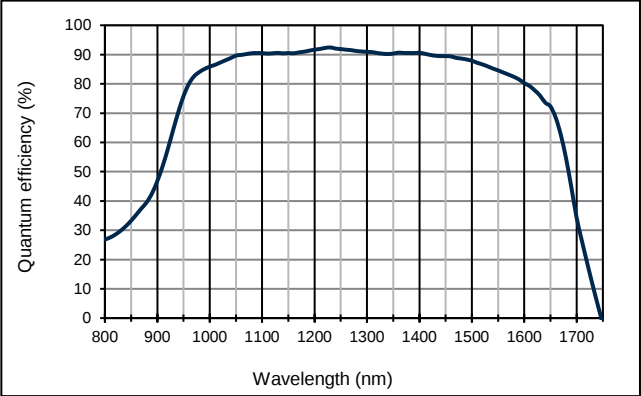
## Spectral response



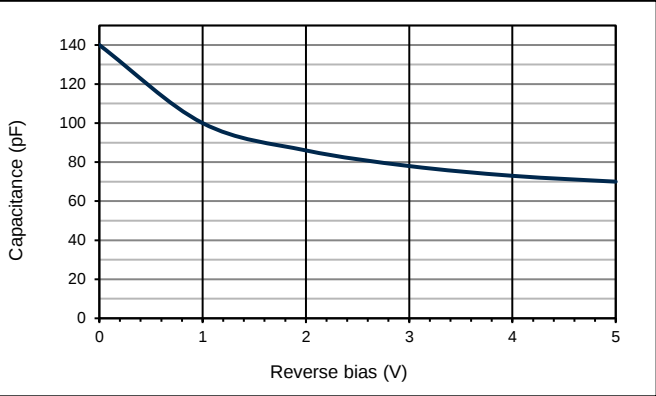
## Electro-optical characteristics @ 23°C

| Symbol          | Characteristic    | Test Condition                                           | Min          | Typ   | Max | Unit            |
|-----------------|-------------------|----------------------------------------------------------|--------------|-------|-----|-----------------|
|                 | Active area       |                                                          | diameter 950 |       |     | μm              |
|                 | Active area       |                                                          | 0.71         |       |     | mm <sup>2</sup> |
| I <sub>D</sub>  | Dark current      | V <sub>R</sub> = 5 V                                     |              | 1     | 10  | nA              |
| C               | Capacitance       | V <sub>R</sub> = 0 V                                     |              | 140   | 200 | pF              |
|                 |                   | V <sub>R</sub> = 5 V                                     |              | 70    | 100 | pF              |
|                 | Responsivity      | λ = 650 nm                                               | 0.02         | 0.05  |     | A/W             |
|                 |                   | λ = 850 nm                                               | 0.10         | 0.20  |     | A/W             |
|                 |                   | λ = 1310 nm                                              | 0.80         | 0.90  |     | A/W             |
|                 |                   | λ = 1550 nm                                              | 0.85         | 0.95  |     | A/W             |
| t <sub>R</sub>  | Rise time         | V <sub>R</sub> = 5 V; λ = 1550 nm; R <sub>L</sub> = 50 Ω |              | 15    |     | ns              |
|                 | Shunt Resistance  | V <sub>R</sub> = 5 mV                                    | 25           | 80    |     | MΩ              |
|                 | Saturation power  | V <sub>R</sub> = 0 V; λ = 1550 nm; R <sub>L</sub> = 50 Ω |              | -3    |     | dbm             |
| D*              | Detectivity       | V <sub>R</sub> = 0 V; λ = 1550 nm; R <sub>L</sub> = 50 Ω | 2.5 E12      | 5 E12 |     | Jones           |
| V <sub>BR</sub> | Breakdown voltage | I <sub>R</sub> = 2 μA                                    | 20           | 30    |     | V               |

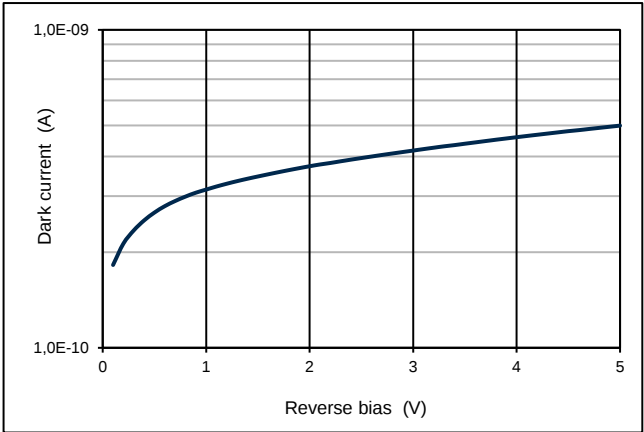
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



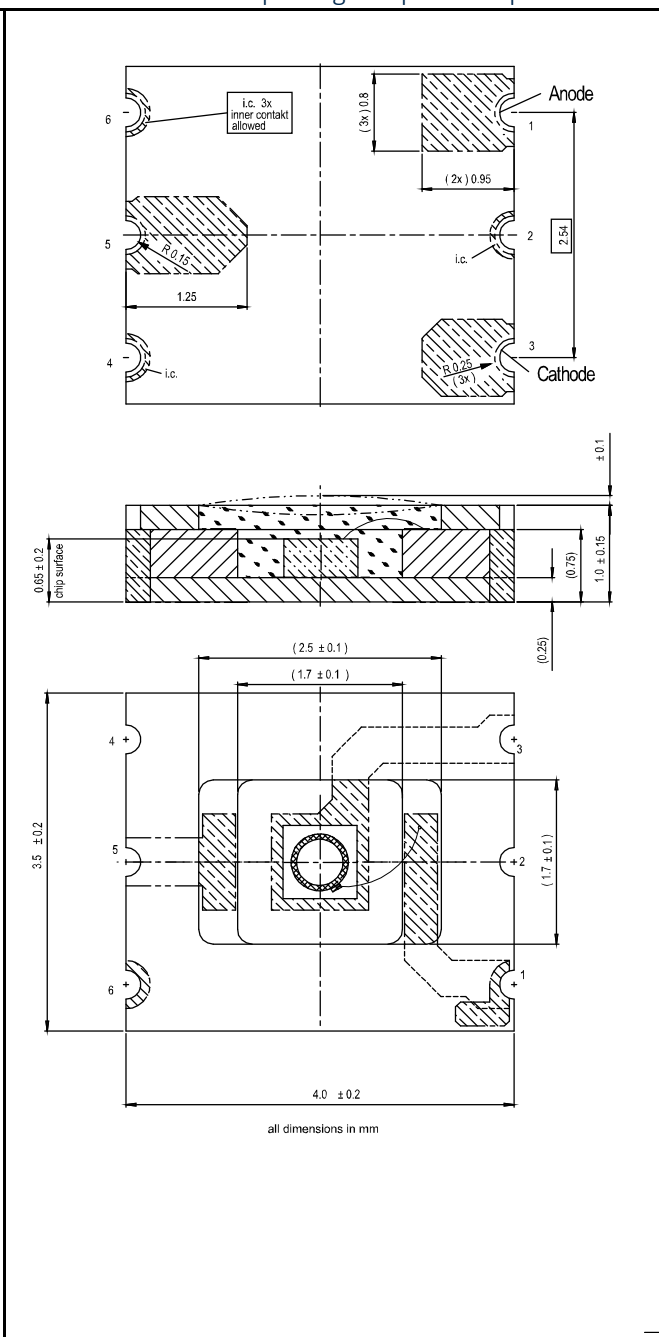
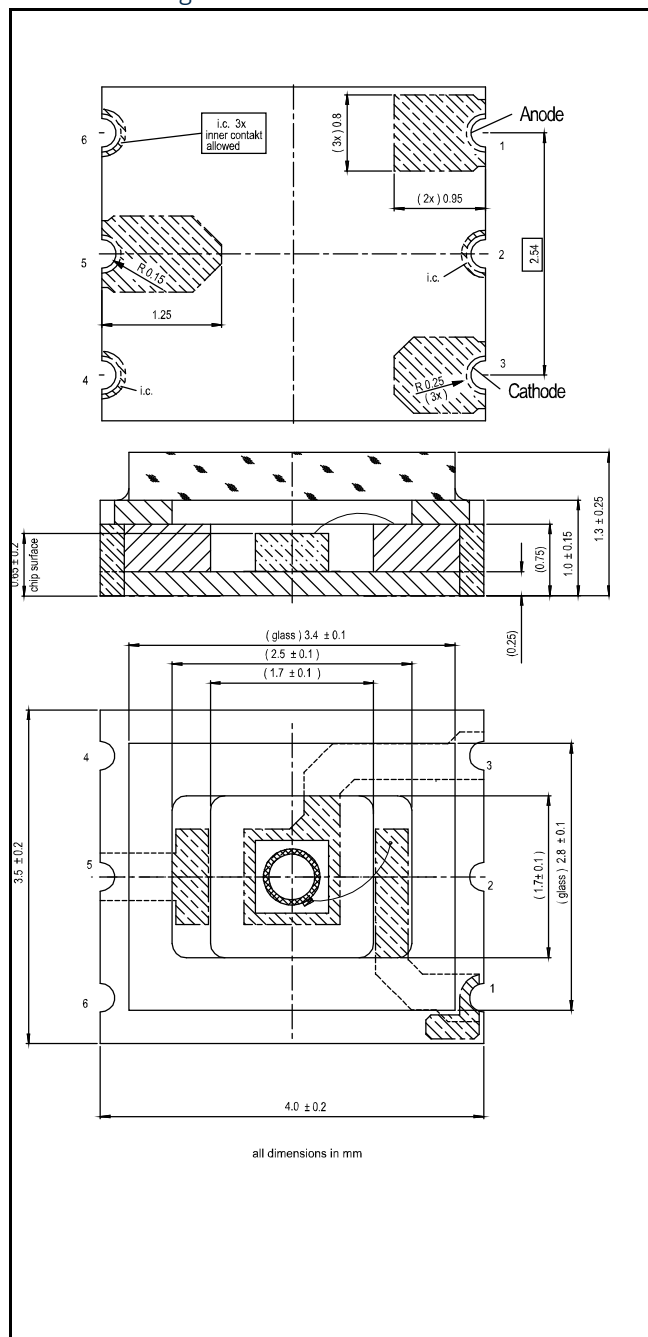
Dark current as fct of bias (23 °C)



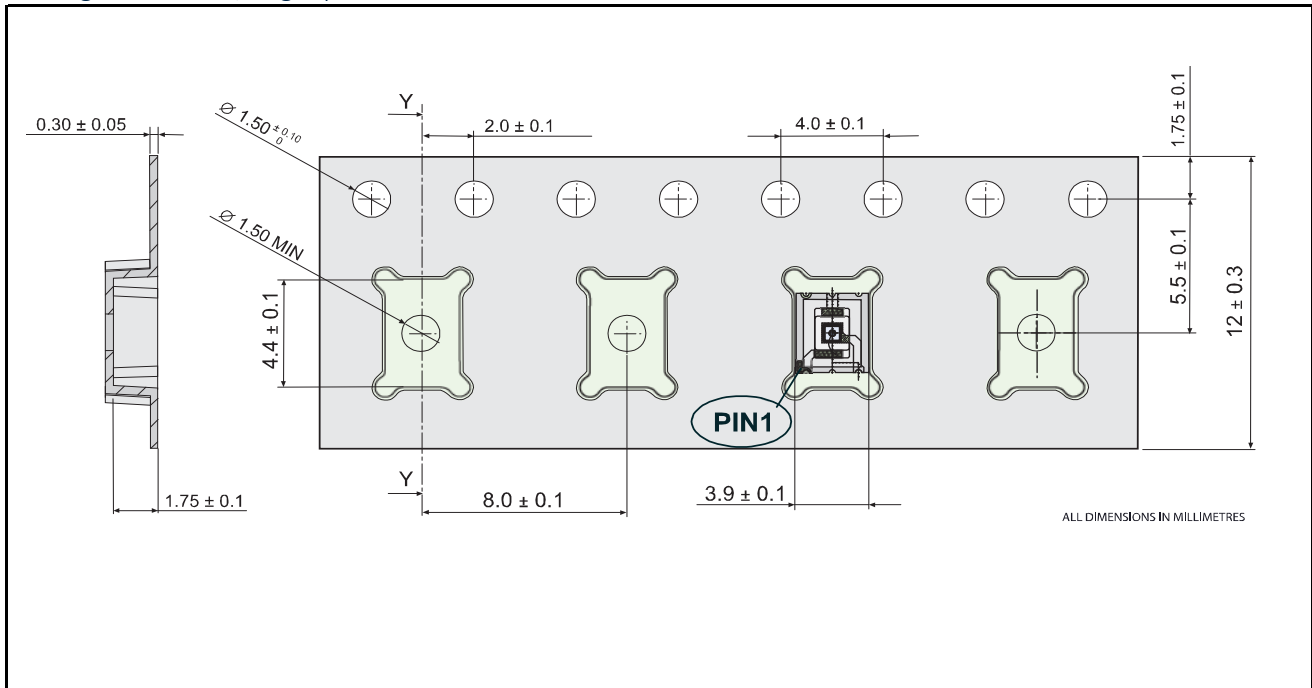
Technical Drawing, Package: LCC6.1

LCC6.1G with glass cover # 3001210

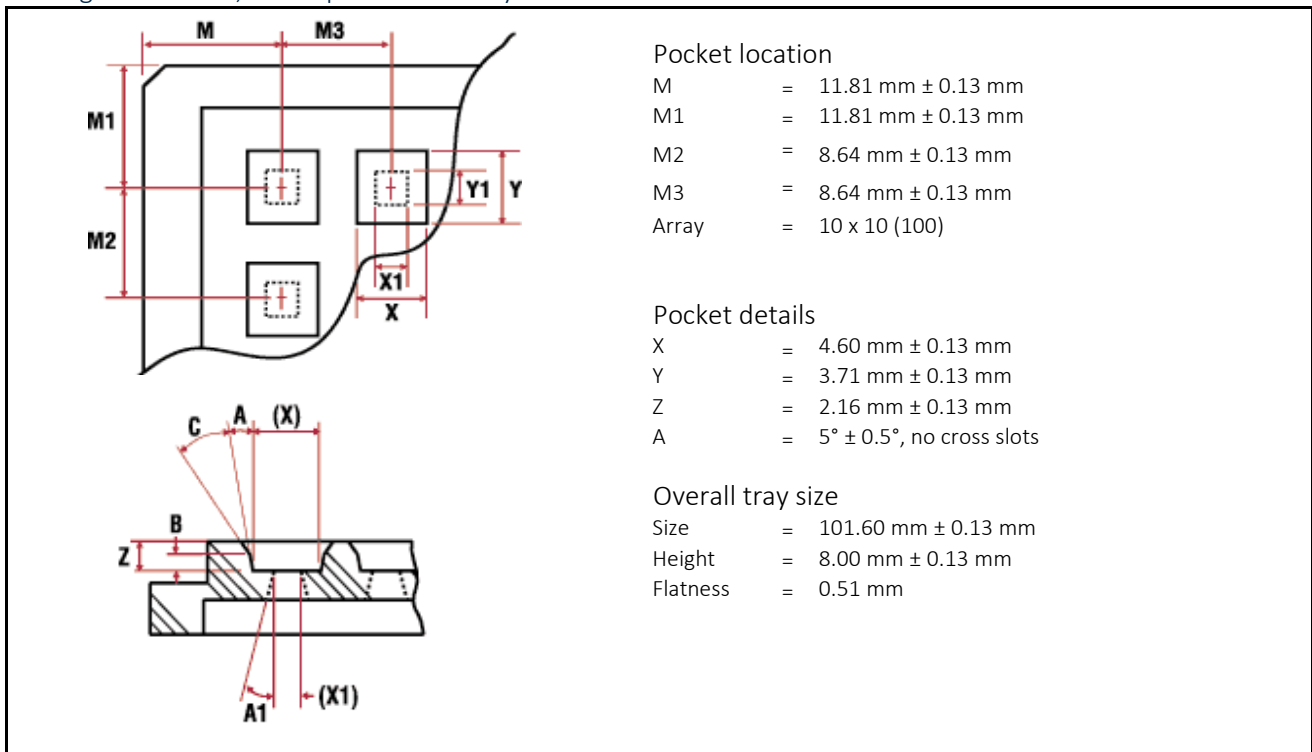
LCC6.1S with silicone potting on special request



## Package dimension, large quantities on reel



## Package dimension, small quantities in trays



Disclaimer: Due to our strive for continuous improvement, specifications are subject to change within our PCN policy according to JESD46C.

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