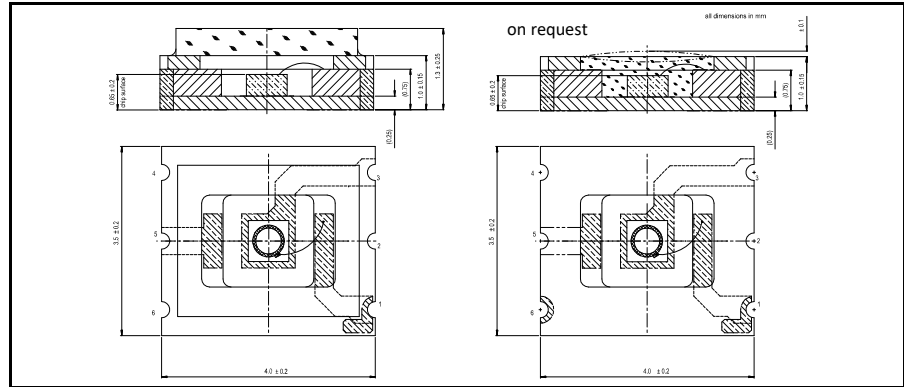


First Sensor



Features

- InGaAs technology
- 0.7 mm² PIN detector
- High sensitivity up to 1700 nm
- Low dark current

Description

Low dark current InGaAs PIN photodiode with circular 0.7 mm² 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

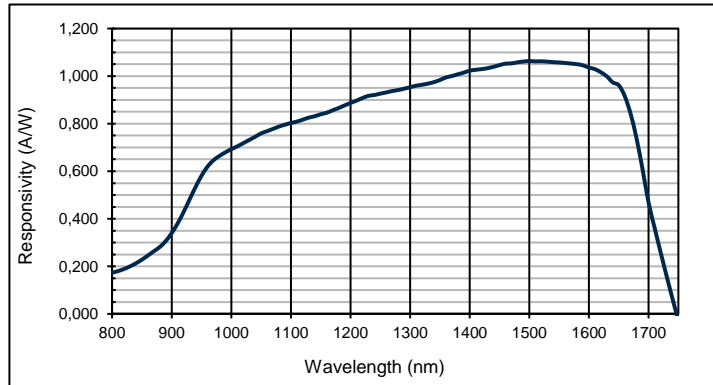
RoHS

2011/65/EU

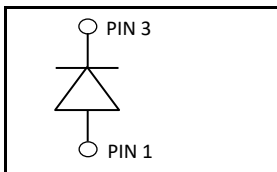
Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T _{STG}	Storage temp	-40	85	°C
T _{OP}	Operating temp	-20	85	°C
V _{max}	Max reverse voltage		20	V
I _{PEAK}	Peak DC current		10	mA

Spectral response



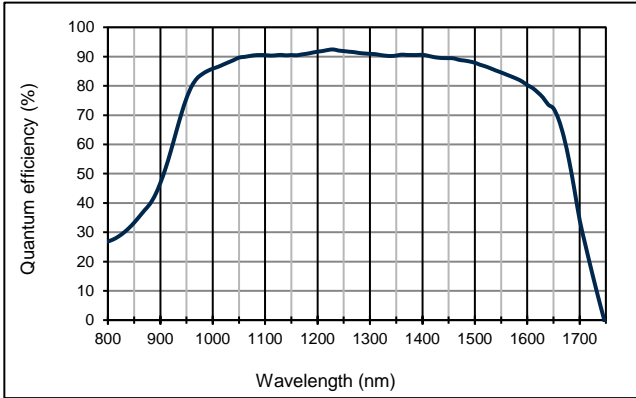
Schematic



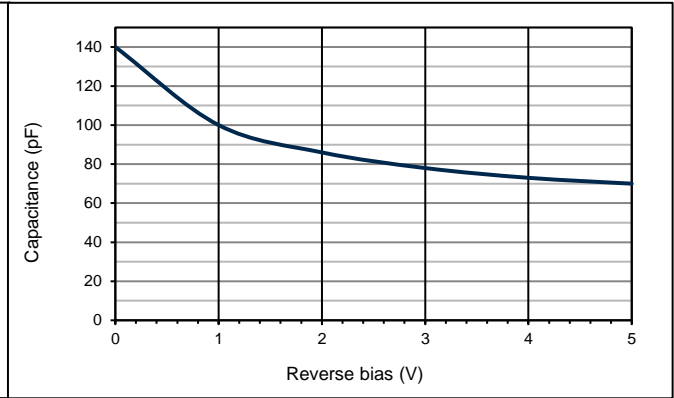
Electro-optical characteristics @ 23°C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		diameter 950			μm
	Active area		0.71			mm ²
I _D	Dark current	V _R = 5 V		1	10	nA
C	Capacitance	V _R = 0 V		140	200	pF
		V _R = 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 _R	Rise time	V _R = 5 V; λ = 1550 nm; R _L = 50 Ω		15		ns
	Shunt Resistance	V _R = 5 mV	25	80		MΩ
	Saturation power	V _R = 0 V; λ = 1550 nm; R _L = 50 Ω		-3		dbm
D*	Detectivity	V _R = 0 V; λ = 1550 nm; R _L = 50 Ω	2.5 E12	5 E12		Jones
V _{BR}	Breakdown voltage	I _R = 2 μA	20	30		V

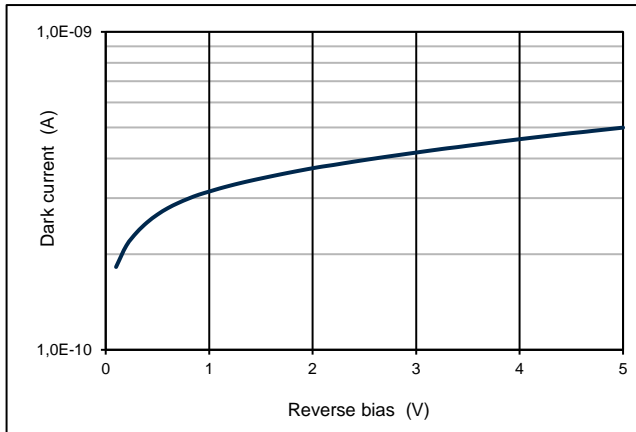
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)

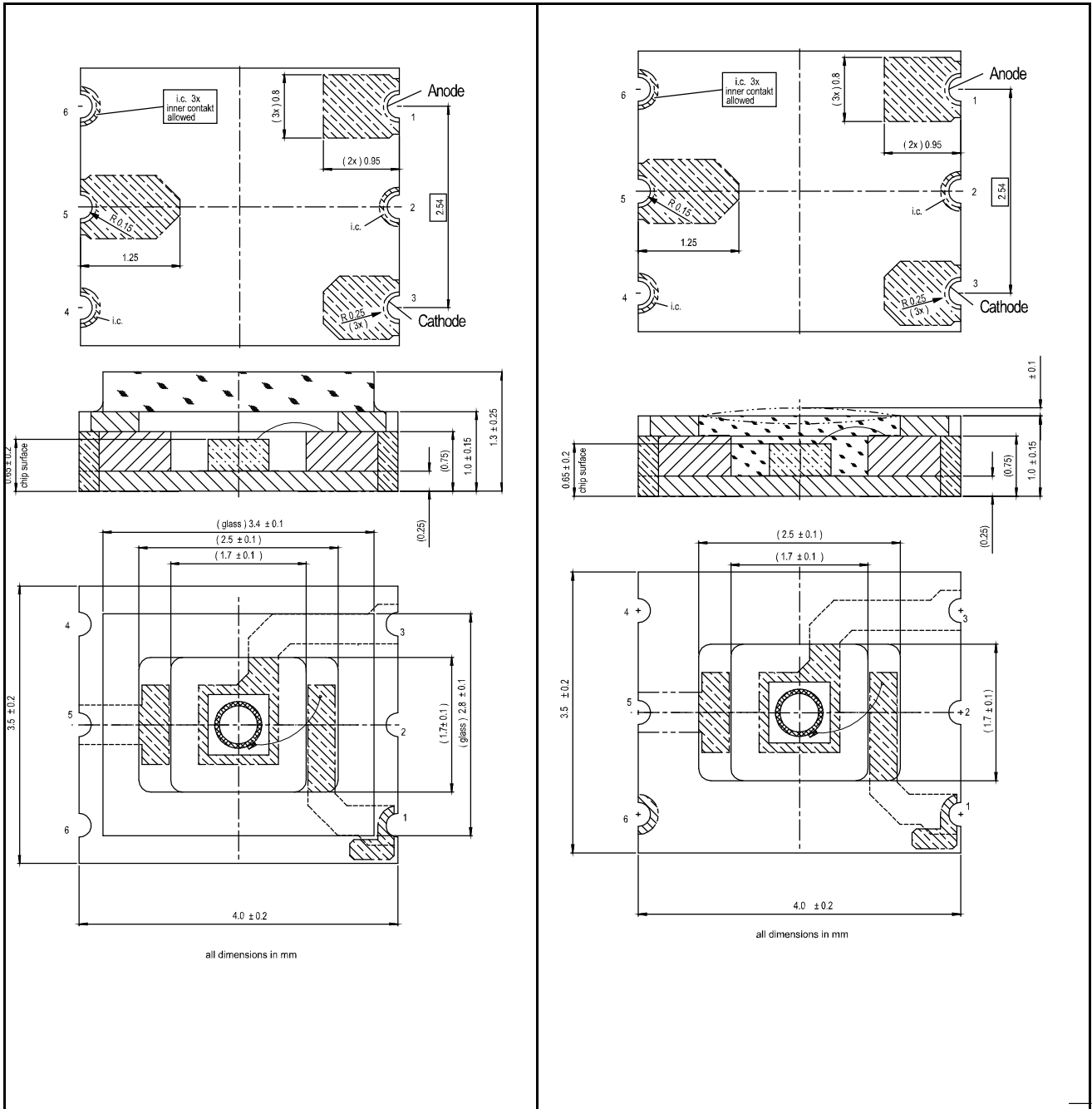


Dark current as fct of bias (23 °C)

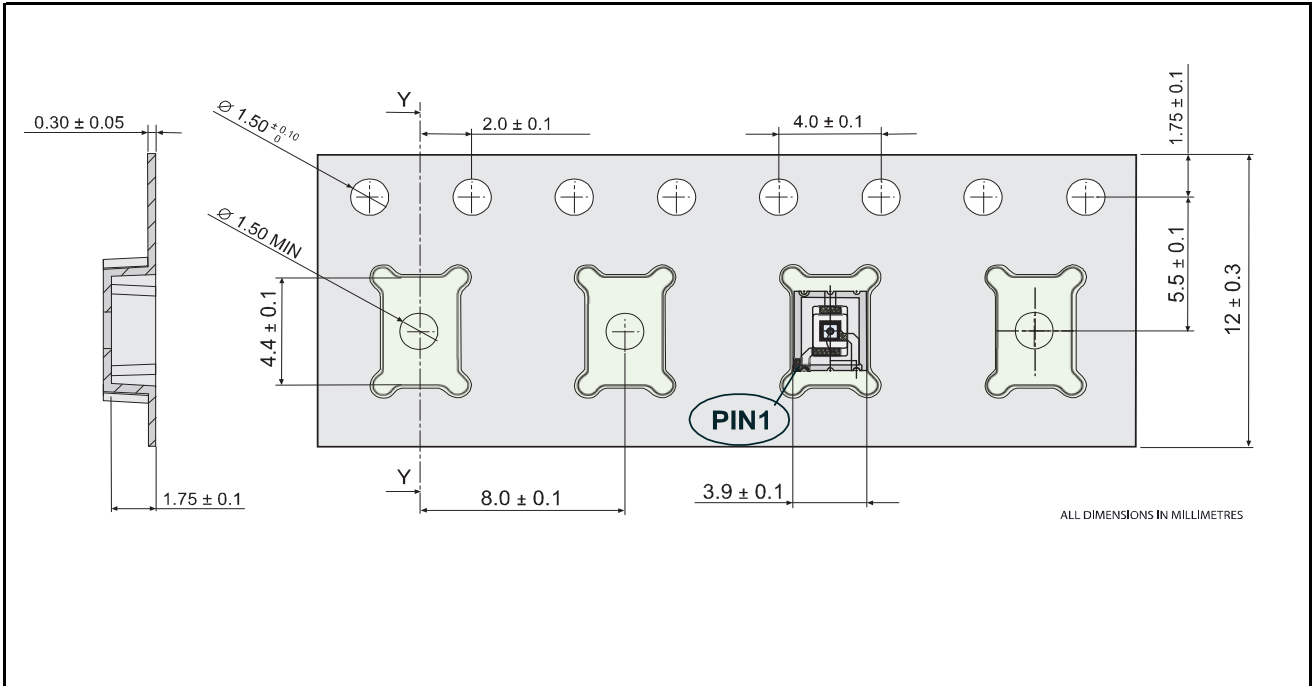


Technical Drawing, Package: LCC6.1
LCC6.1G with glass cover # 3001210

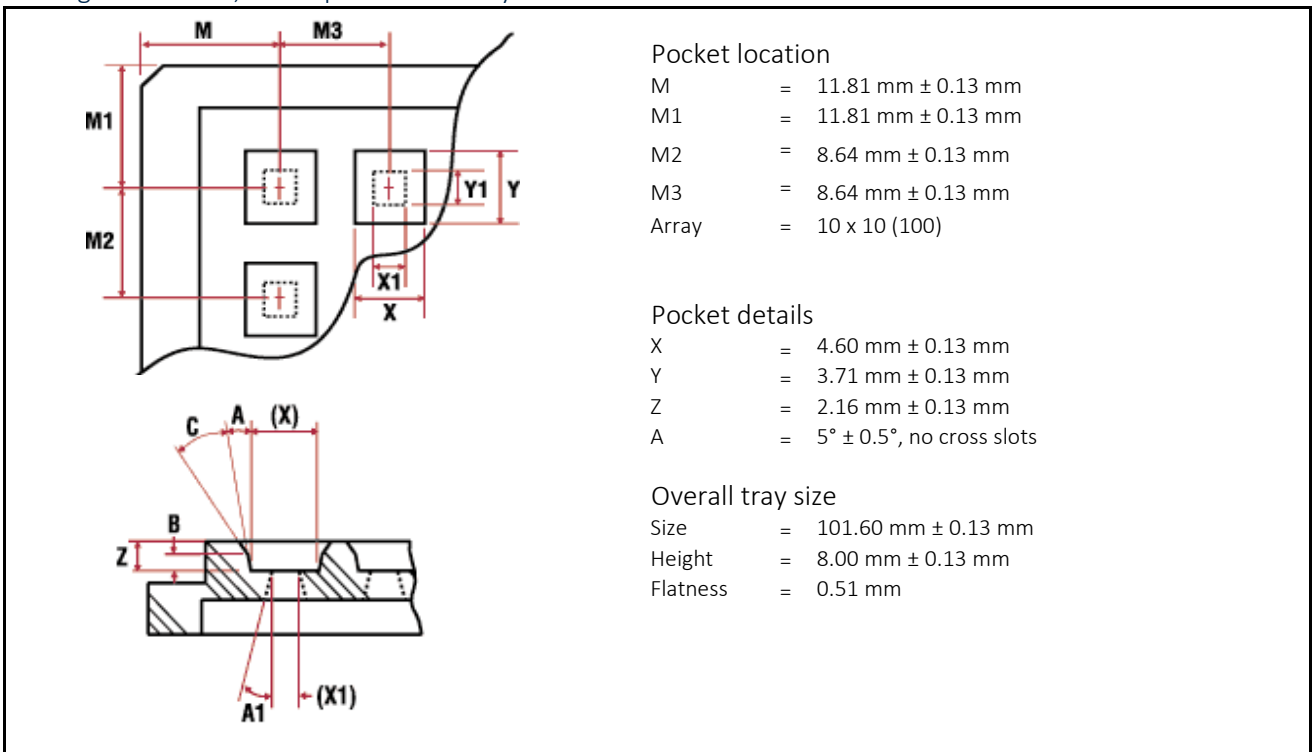
LCC6.1S with silicone potting on special request



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.