
**Features**

- InGaAs technology
- 0.7 mm<sup>2</sup> PIN detector
- High sensitivity up to 1700 nm
- Extended VIS sensitivity
- 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**

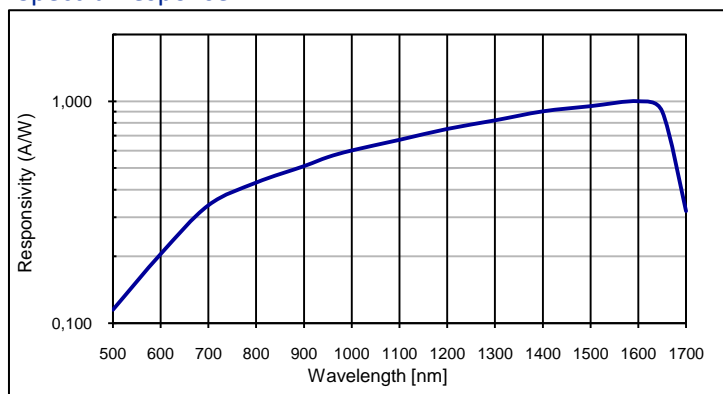
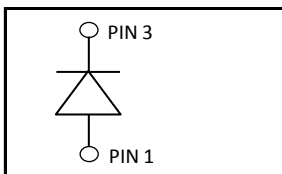
- Precision photometry
- Analytical instruments
- Medical equipment
- Pulsed light detector
- Eyesafe laser light detector

**RoHS**

2002/95/EC


**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

**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 <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	0.20	0.30		A/W
		λ = 850 nm	0.40	0.50		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		-8		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

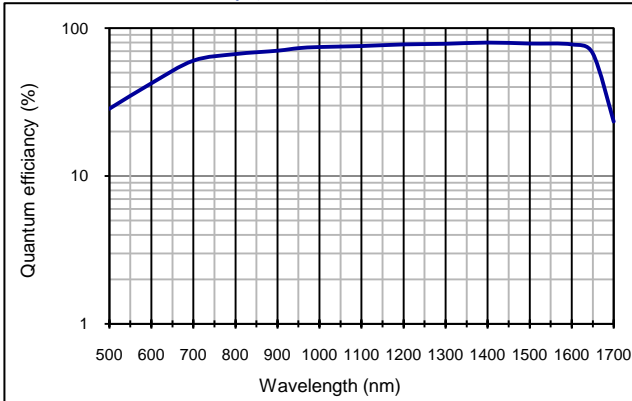
**European, International Sales:**


First Sensor AG  
 Peter-Behrens-Strasse 15  
 12459 Berlin  
 Germany  
 T +49 30 6399 2399  
 F +49 30 639923-752  
 sales.opto@first-sensor.com

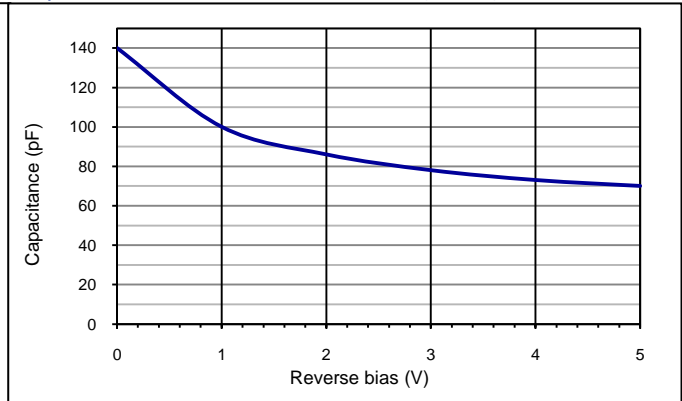
**USA:**


First Sensor Inc.  
 5700 Corsa Avenue #105  
 Westlake Village  
 CA 91362 USA  
 T +1 818 706 3400  
 F +1 818 889 7053  
 sales.us@first-sensor.com

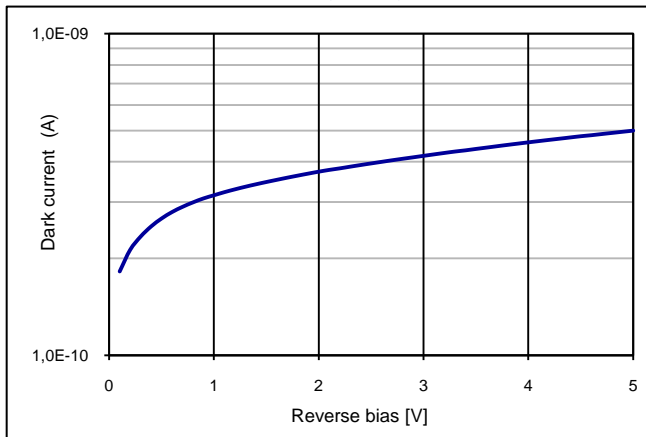
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



European, International Sales:



First Sensor AG  
 Peter-Behrens-Strasse 15  
 12459 Berlin  
 Germany  
 T +49 30 6399 2399  
 F +49 30 639923-752  
 sales.opto@first-sensor.com

USA:

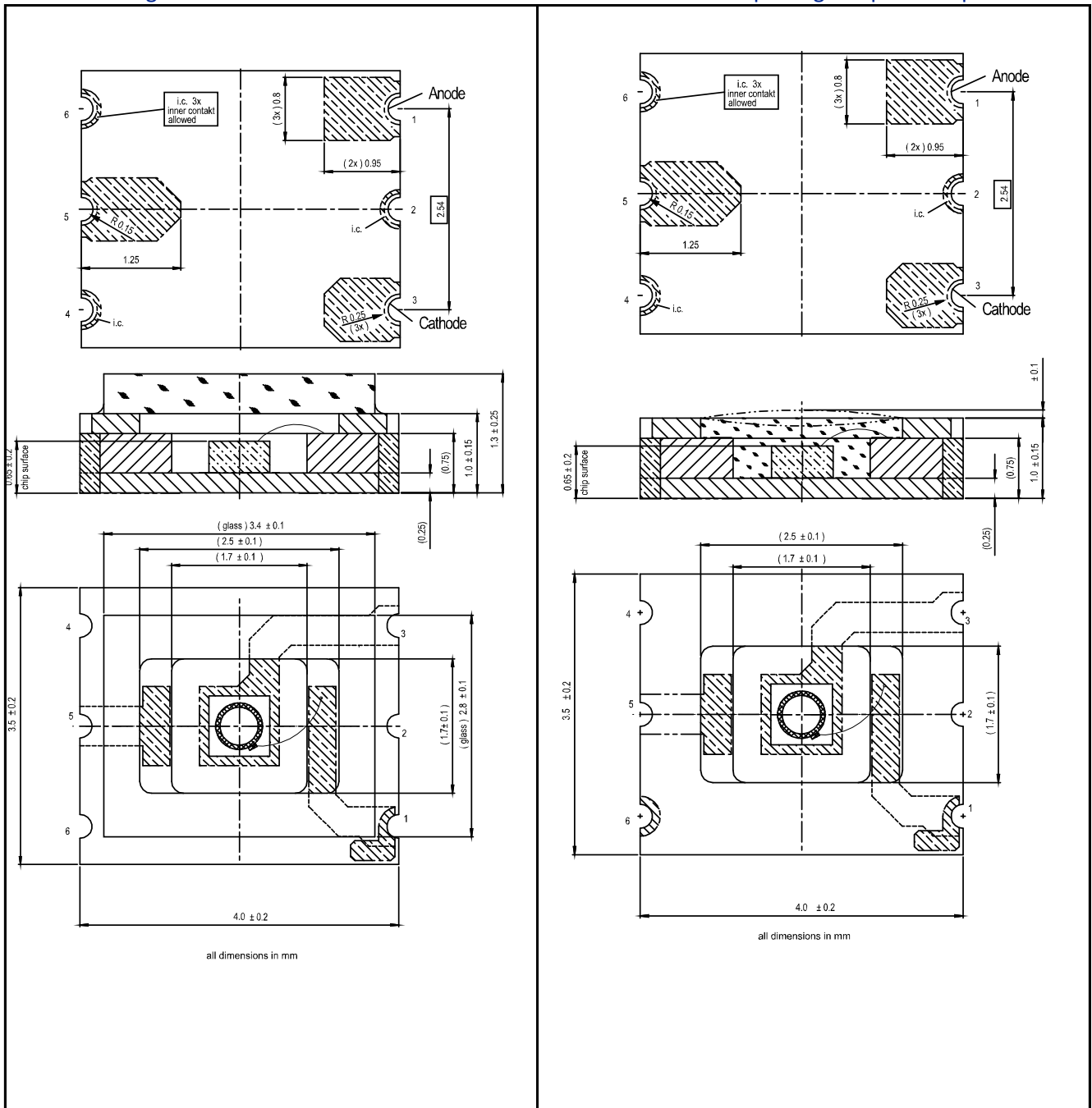


First Sensor Inc.  
 5700 Corsa Avenue #105  
 Westlake Village  
 CA 91362 USA  
 T +1 818 706 3400  
 F +1 818 889 7053  
 sales.us@first-sensor.com

Technical Drawing, Package: LCC6.1

LCC6.1G with glass cover # 501202

LCC6.1S with silicone potting on special request



European, International Sales:

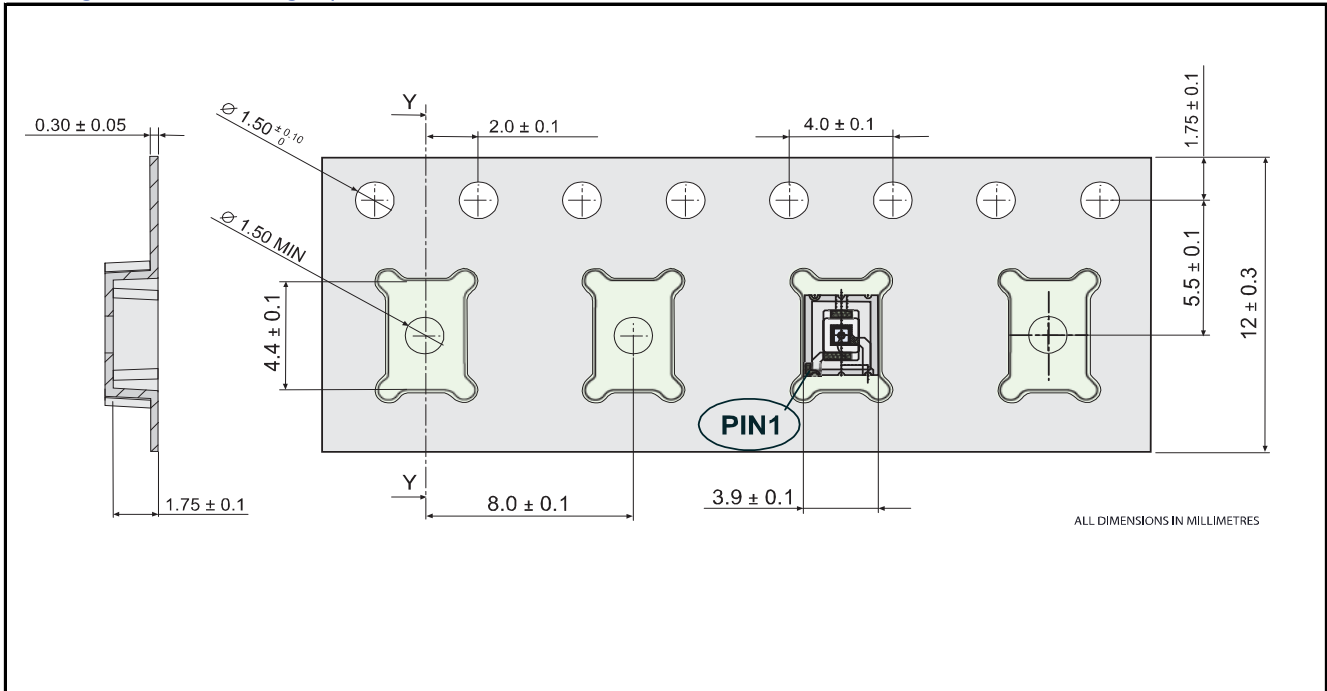
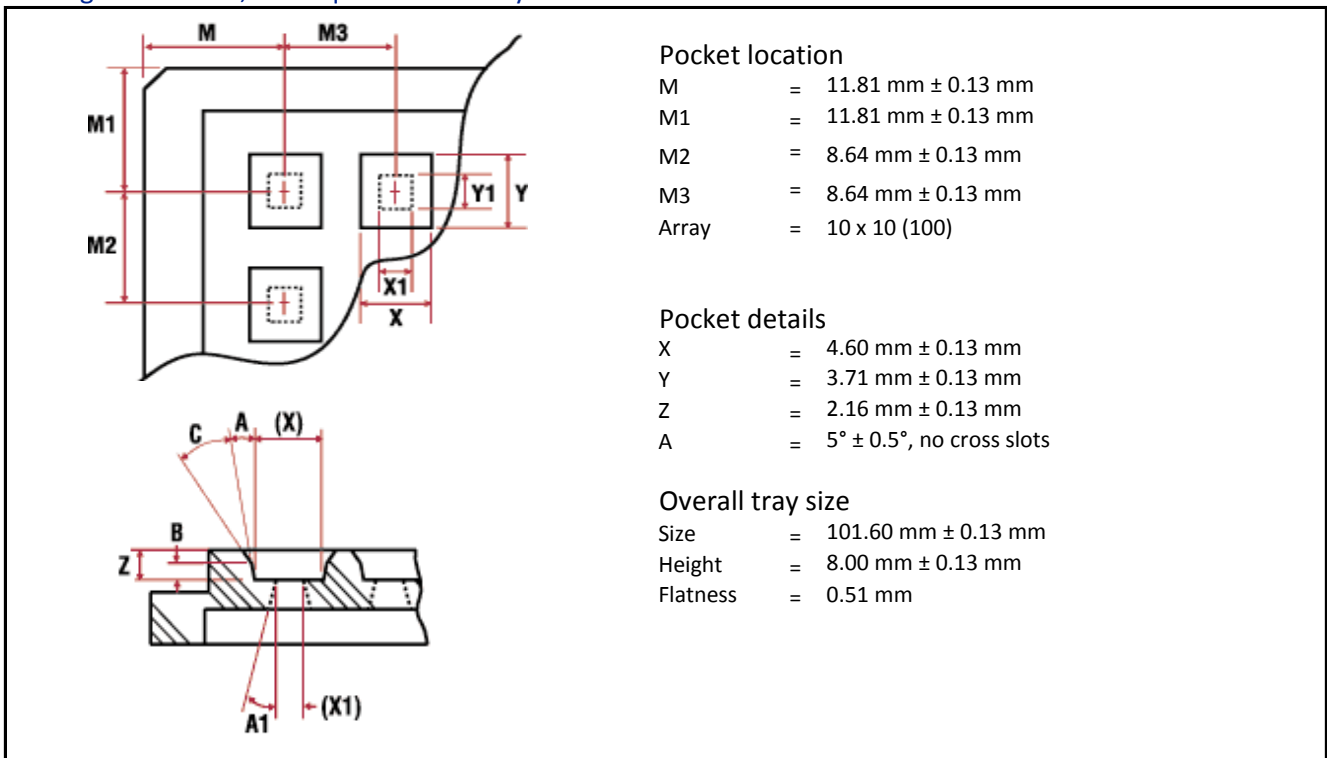


First Sensor AG  
 Peter-Behrens-Strasse 15  
 12459 Berlin  
 Germany  
 T +49 30 6399 2399  
 F +49 30 639923-752  
 sales.opto@first-sensor.com

USA:



First Sensor Inc.  
 5700 Corsa Avenue #105  
 Westlake Village  
 CA 91362 USA  
 T +1 818 706 3400  
 F +1 818 889 7053  
 sales.us@first-sensor.com

**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.

**European, International Sales:**


First Sensor AG  
 Peter-Behrens-Strasse 15  
 12459 Berlin  
 Germany  
 T +49 30 6399 2399  
 F +49 30 639923-752  
 sales.opto@first-sensor.com

**USA:**


First Sensor Inc.  
 5700 Corsa Avenue #105  
 Westlake Village  
 CA 91362 USA  
 T +1 818 706 3400  
 F +1 818 889 7053  
 sales.us@first-sensor.com