

Features

- 500 μm x 500 μm active area
- Low dark current
- Fast response time
- High speed epitaxy
- Fully depleted at 3.5 V

Description

High speed epitaxy PIN photodiode with 0.25 mm² square active area. Ceramic carrier type non hermetic SMD package with clear glass window (501014) or silicone potting (on request). Reflow solderable.

Application

- Pulsed light detection
- High speed photometry
- High speed optical communications
- Fiber optic light monitoring

RoHS

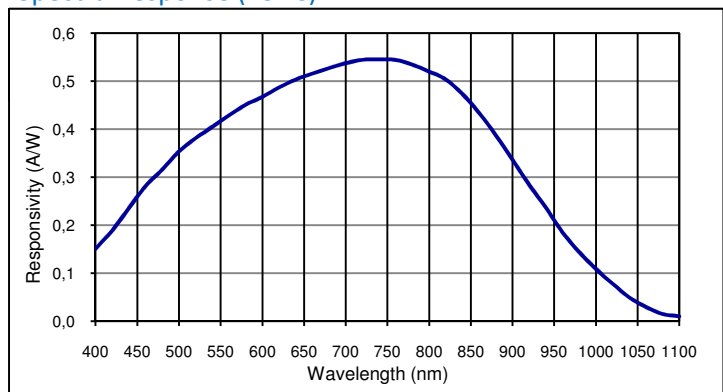
2002/95/EC



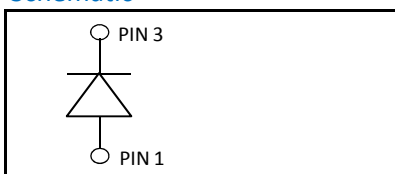
Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T _{STG}	Storage temp	-40	100	°C
T _{OP}	Operating temp	-20	70	°C
V _{max}	Max reverse voltage		20	V
I _{PEAK}	Peak DC current		0.25	mA

Spectral response (23 °C)



Schematic



Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		500 x 500			μm
	Active area		0.25			mm ²
I _D	Dark current	V _R = 3.5 V		0.01	0.1	nA
C	Capacitance	V _R = 0 V		5		pF
C	Capacitance	V _R = 3.5 V		1.3		pF
	Responsivity	λ = 635 nm		0.49		A/W
	Responsivity	λ = 800 nm		0.52		A/W
t _R	Rise time	V _R = 3.5 V; λ = 850 nm; R _L = 50 Ω		0.4		ns
V _{BR}	Breakdown voltage	I _R = 2 μA	20	50		V
	Shunt resistance	V _R = 10 mV		1000		MΩ
	N.E.P.	V _R = 3.5 V; λ = 850 nm; R _L = 50 Ω		5 E-15		W/√Hz

European, International Sales:



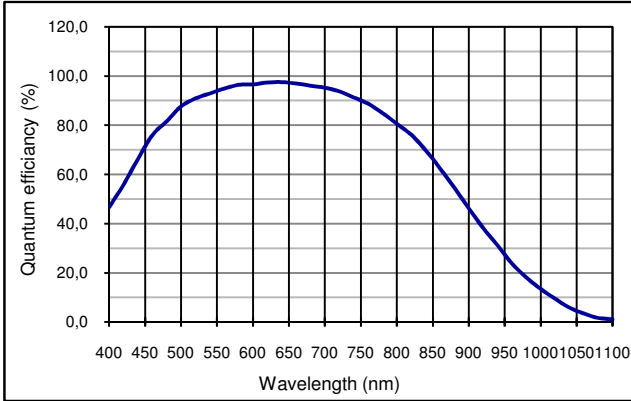
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 Peter-Behrens-Strasse 15
 12459 Berlin
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 E-Mail: sales@silicon-sensor.com

USA:

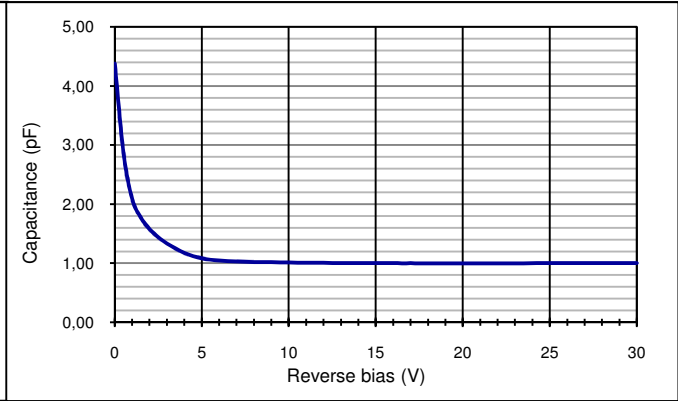


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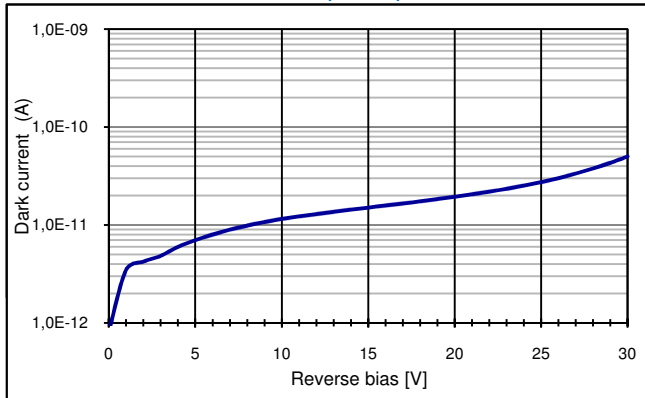
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



Application hints:

Please refer to document "Instructions for handling and processing"

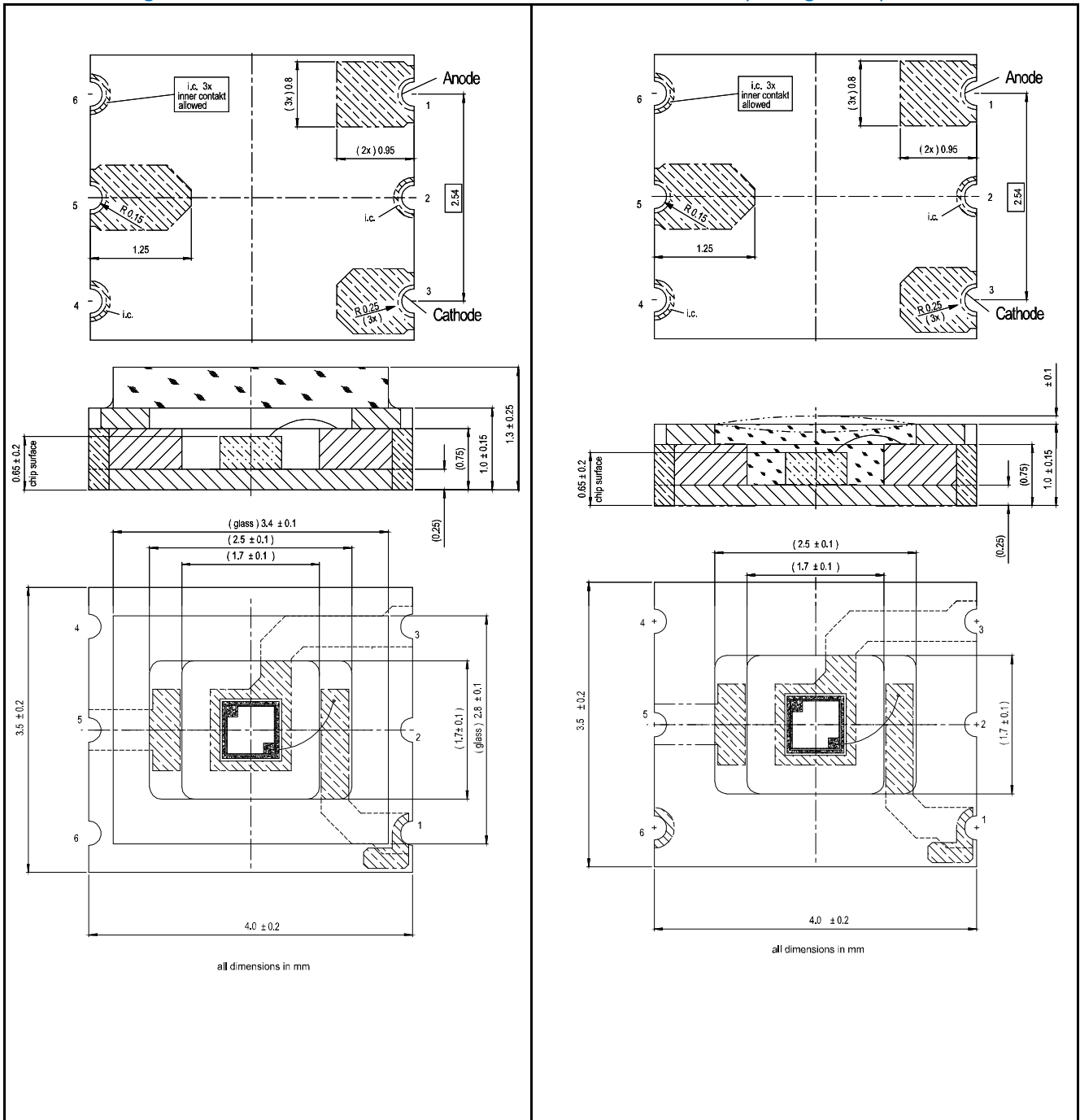
European, International Sales:

USA:

Technical Drawing, Package: LCC6.1

LCC6.1G with glass cover # 501126

LCC6.1S with silicone potting on request



European, International Sales:



International AG

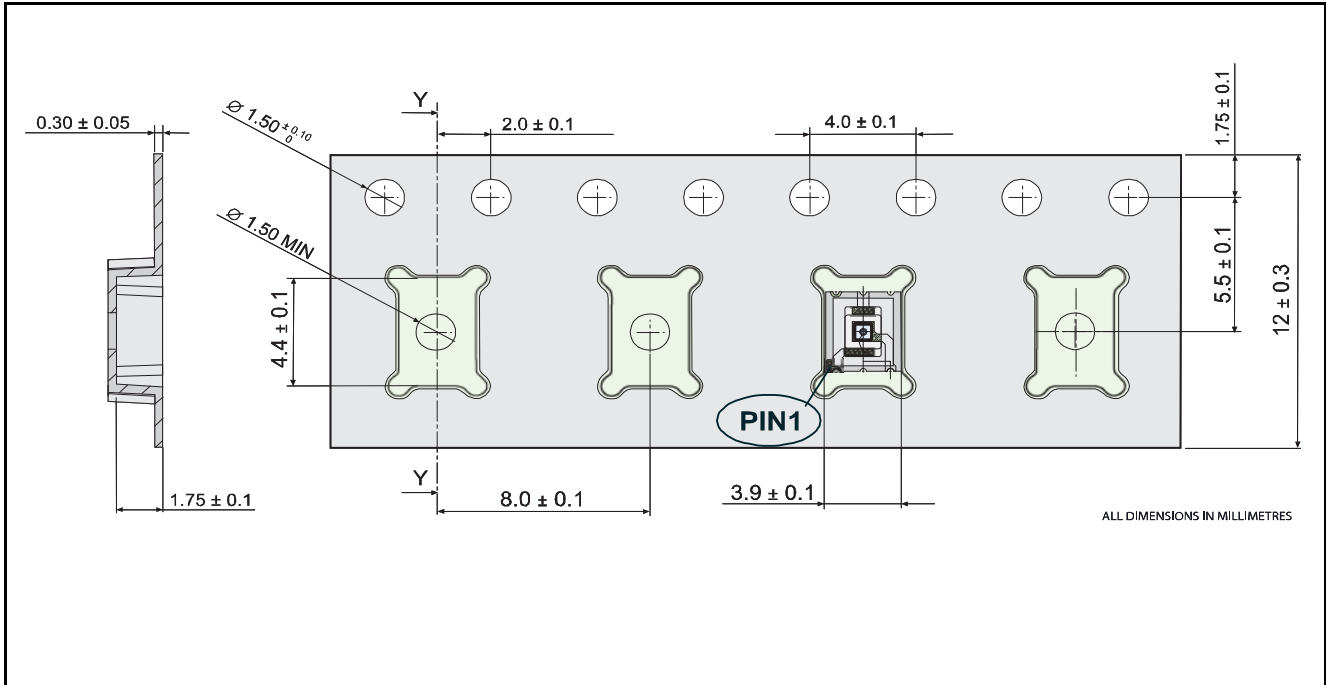
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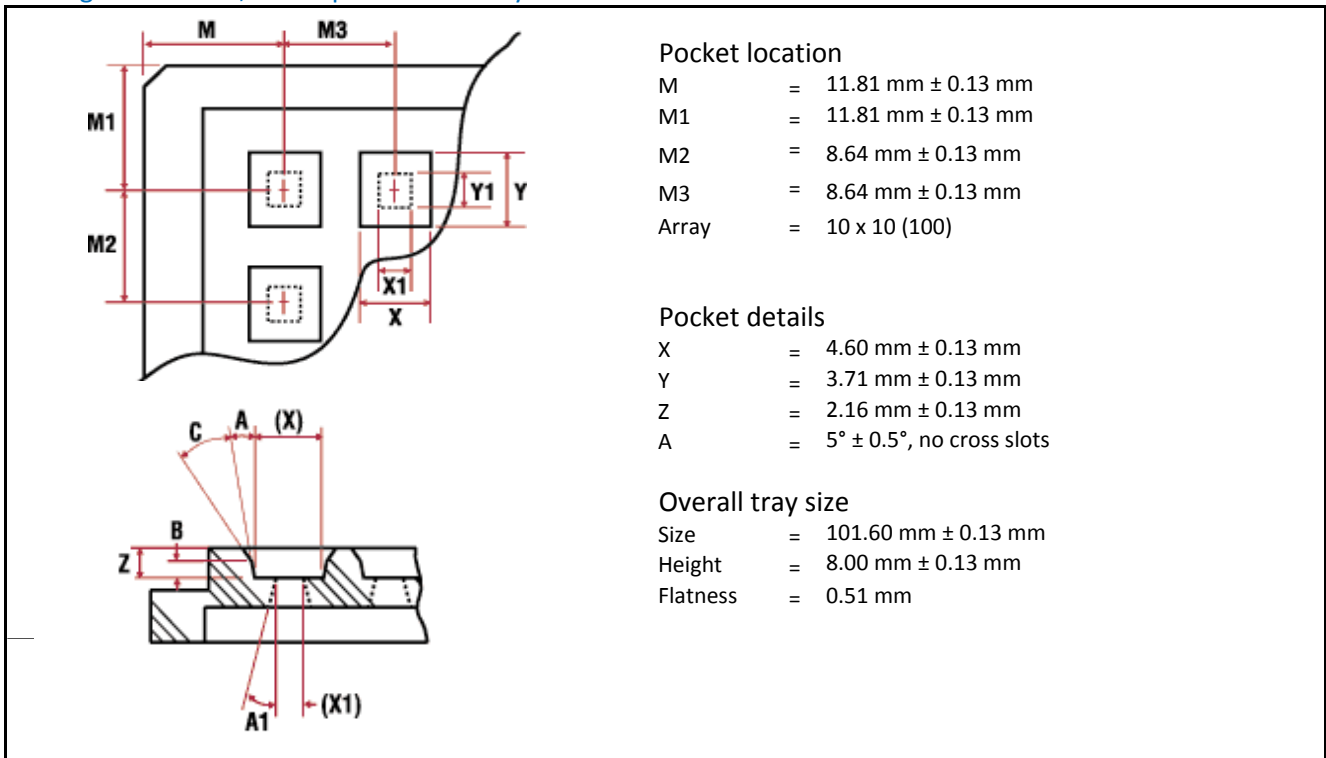


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Package dimension, large quantities on reel



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:



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