
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

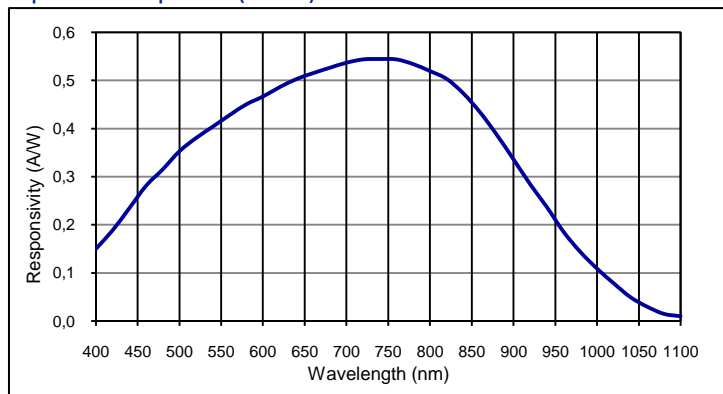
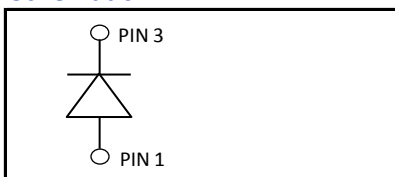
- Pulsed light detection
- High speed photometry
- High speed optical communications
- Fiber optic light monitoring

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		10	mA

Spectral response (23 °C)

Schematic

Electro-optical characteristics @ 23 °C

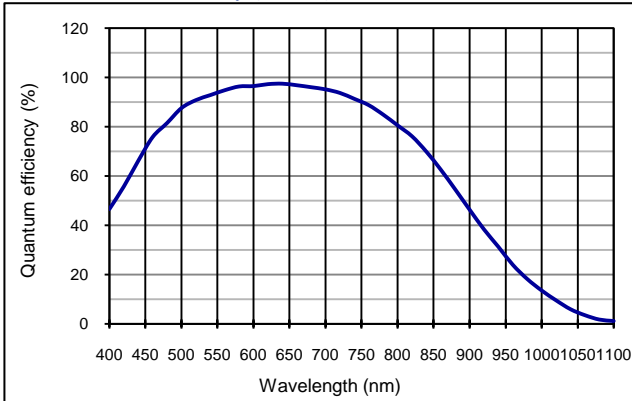
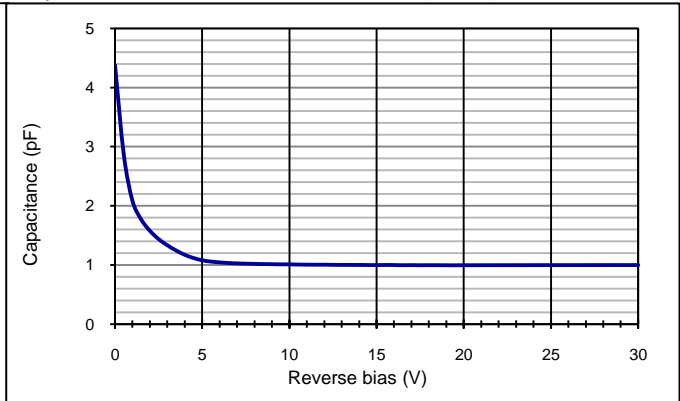
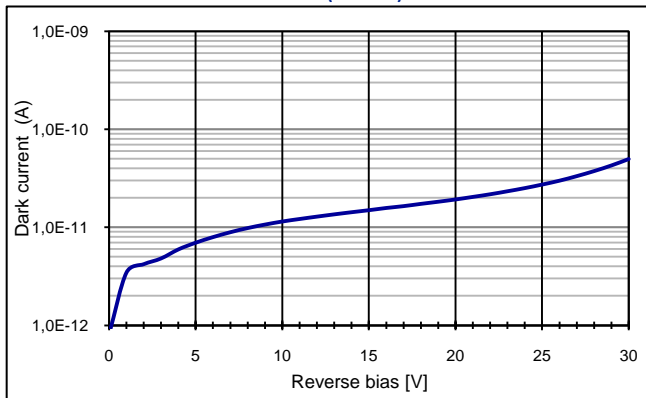
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		500 x 500			μm
	Active area		0.25			mm ²
I _D	Dark current	V _R = 3.5 V		0.01	0.1	nA
C	Capacitance	V _R = 0 V		5		pF
C	Capacitance	V _R = 3.5 V		1.3		pF
	Responsivity	λ = 635 nm		0.49		A/W
	Responsivity	λ = 800 nm		0.52		A/W
t _R	Rise 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		10000		M Ω
	N.E.P.	V _R = 3.5 V; λ = 850 nm		4 E-15		W/ $\sqrt{\text{Hz}}$

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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:

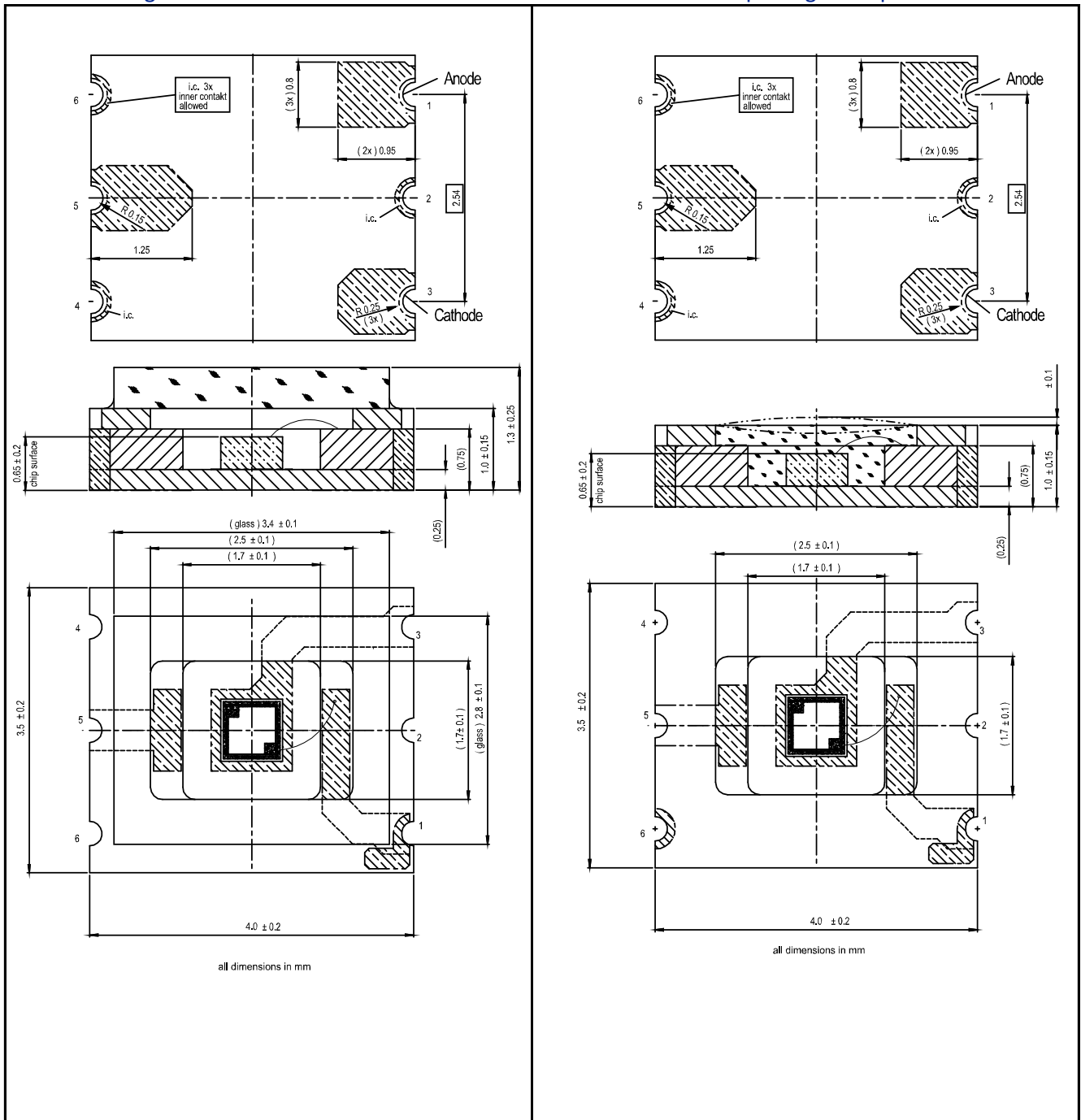
Please refer to document "Instructions for handling and processing"

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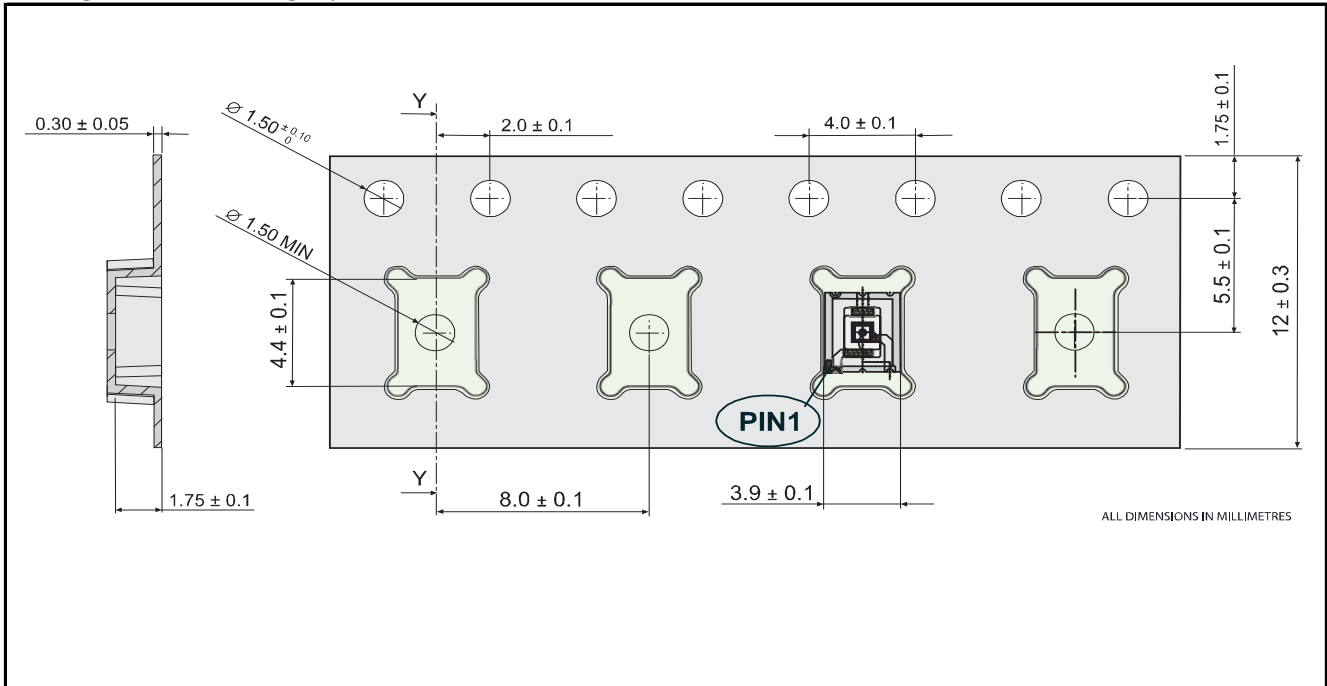
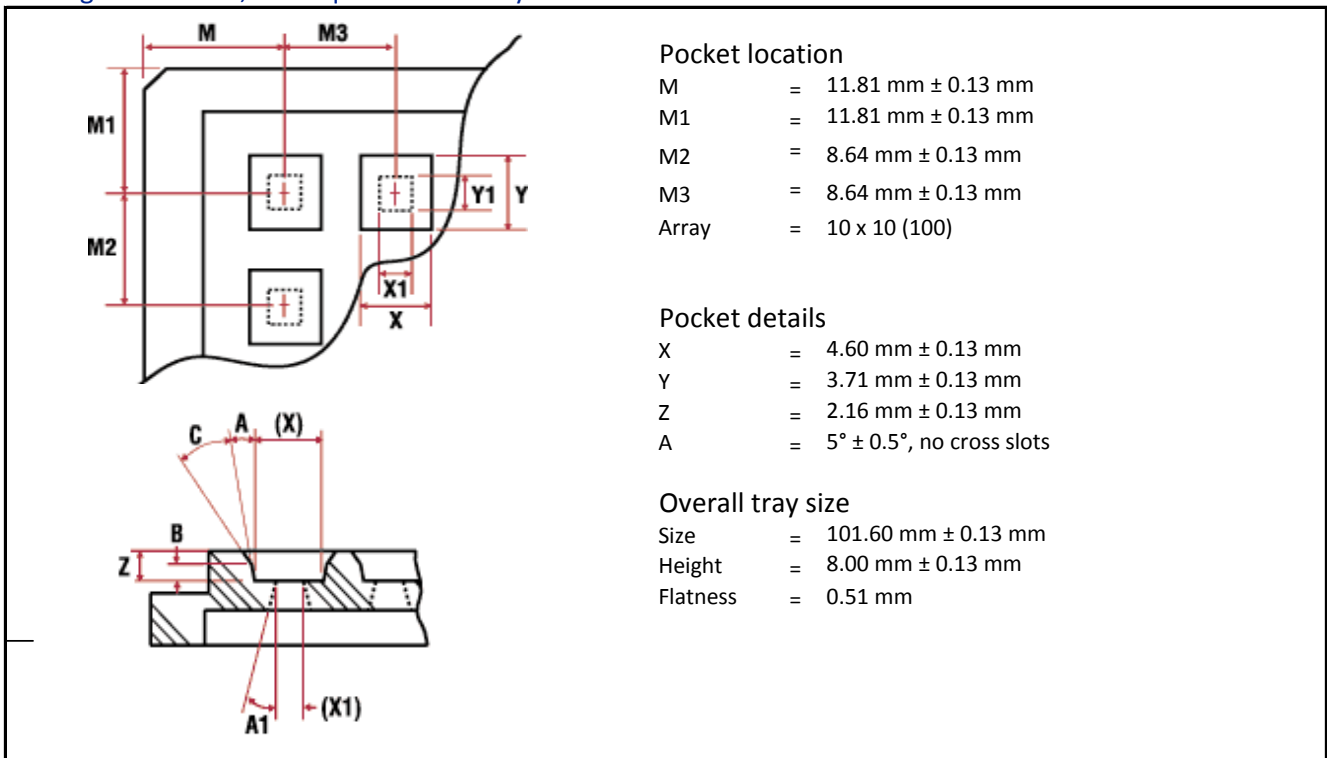
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Technical Drawing, Package: LCC6.1
LCC6.1G with glass cover # 501126
LCC6.1S with silicone potting on request

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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.

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