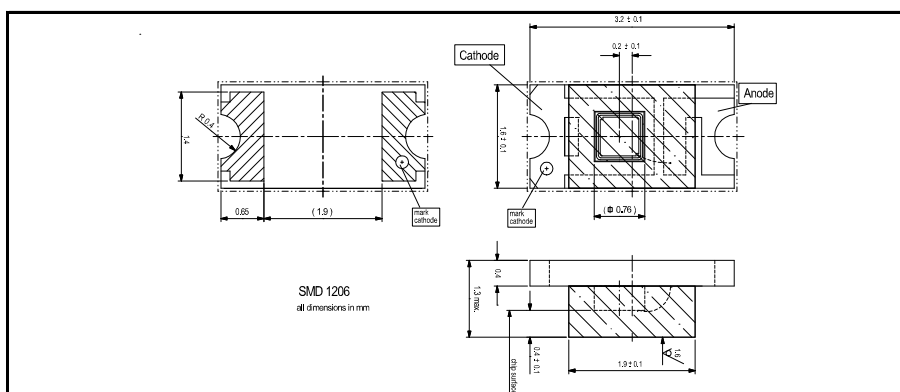
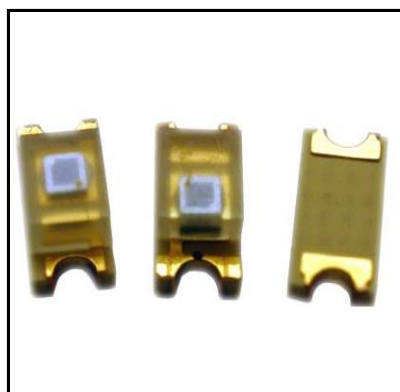




Features

- 500 μm x 500 μm active area
- Low dark current
- Fast response time
- High speed epitaxy

Description

High speed epitaxy PIN photodiode with 0.25 mm² square active area. PCB carrier type non hermetic SMD 1206 package with epoxy moulding. Reflow solderable.

Application

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

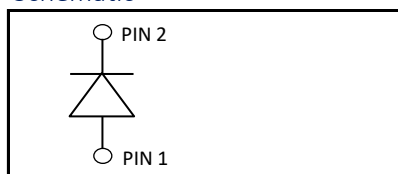
RoHS

2011/65/EU

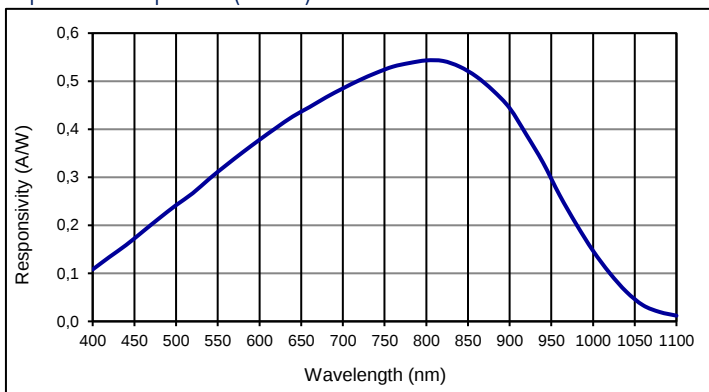
Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-45	100	°C
T_{OP}	Operating temp	-40	85	°C
V_{max}	Max reverse voltage		30	V
I_{PEAK}	Peak DC current		10	mA

Schematic



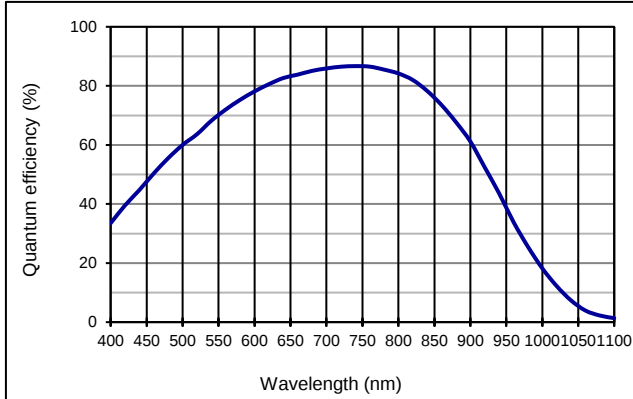
Spectral response (23 °C)



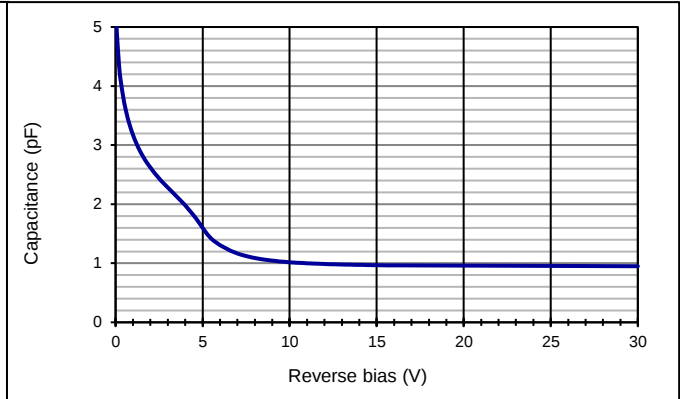
Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		500 x 500			μm
	Active area		0.25			mm ²
I_D	Dark current	$V_R = 20 \text{ V}$		0.1		nA
C	Capacitance	$V_R = 0 \text{ V}$		6		pF
C	Capacitance	$V_R = 20 \text{ V}$		1.8		pF
	Responsivity	$\lambda = 635 \text{ nm}$		0.4		A/W
	Responsivity	$\lambda = 800 \text{ nm}$		0.52		A/W
t_R	Rise time	$V_R = 20 \text{ V}; \lambda = 850 \text{ nm}; R_L = 50 \Omega$		0.4		ns
V_{BR}	Breakdown voltage	$I_R = 2 \mu\text{A}$	30	50		V
	Shunt resistance	$V_R = 10 \text{ mV}$		1000		M Ω
	N.E.P.	$V_R = 20 \text{ V}; \lambda = 850 \text{ nm}$		1.1 E-14		W/Hz

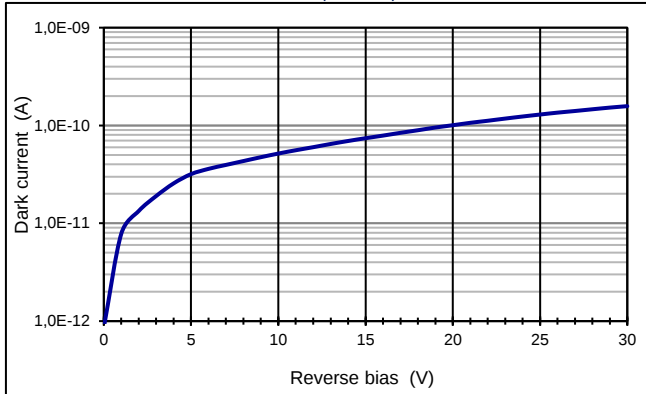
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



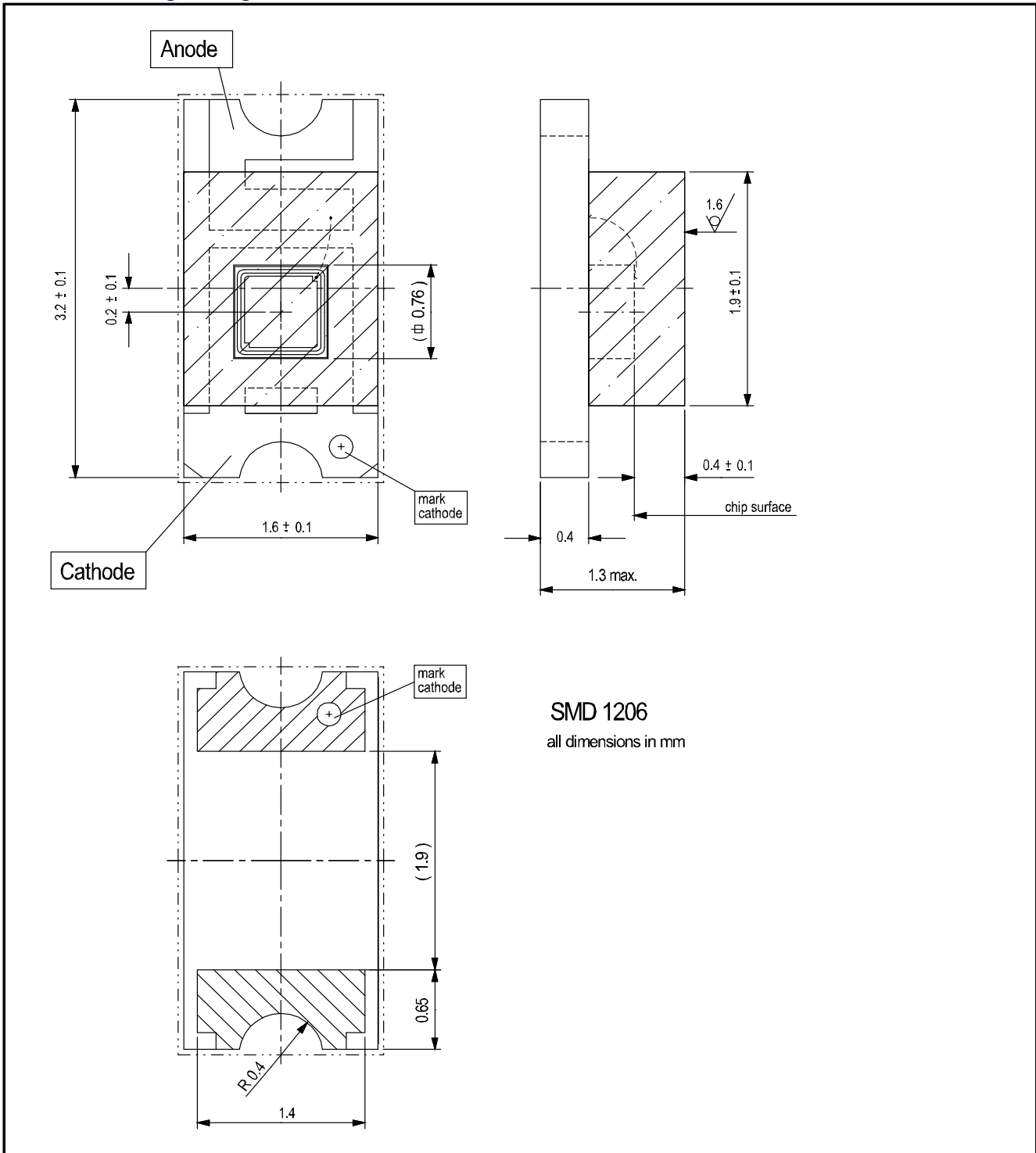
Dark current as fct of bias (23 °C)



Application hints:

Please refer to document "Instructions for handling and processing"

Technical Drawing, Package: SMD1206



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

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