Optrans

Preliminary

Quad InGaAs PIN Photodiode

Product No: **PD1300T38-SP4**

Sensitivity Wavelength Range: 600nm ~ 17 50nm

The 4346 series from Optrans, a high sensitivity and high reliability product series, is ideally suited for Optical Communication devices. Custom packaging options for this die are also available.

FEATURES

> High Speed Response - 1. 0GHz
> TO-5 Metal Can Package
> Active Area of 3.0mm / High Sensitivity
> Spectral Range: 600nm - 17 50nm

APPLICATIONS

> High Speed Optical Communications
> Industrial Controls
> Optical Switches
> LIDAR
> Medical

Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Active Area	Φ	3.0	mm
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Dark Current	ID	VR=0V	--	0.13	--	nA
Wavelength Range	λ	VR=0V	600	--	17 50	nm
Peak Wavelength	λ	VR=0V	--	1600	--	nm
Crosstalk	CT	VR=0V, λ=1600nm	--	2	5	%
Responsivity	R	λ=1330nm	--	0.55	--	A/W
		λ=1600nm	0.90	0.95	--	A/W
Quantum Efficiency	QE	λ=1600nm	--	60	--	%
Rise Time @ 1330 nm	TR	VR=2V; RL=50Ω	--	8	--	ns
Shunt Resistance	RSH	VR=10m V,-10 mV	--	1.43	--	MΩ
Capacitance	C	VR=0V; 1MHz	--	107	--	pF

*1: Device specifications are (Per Element)

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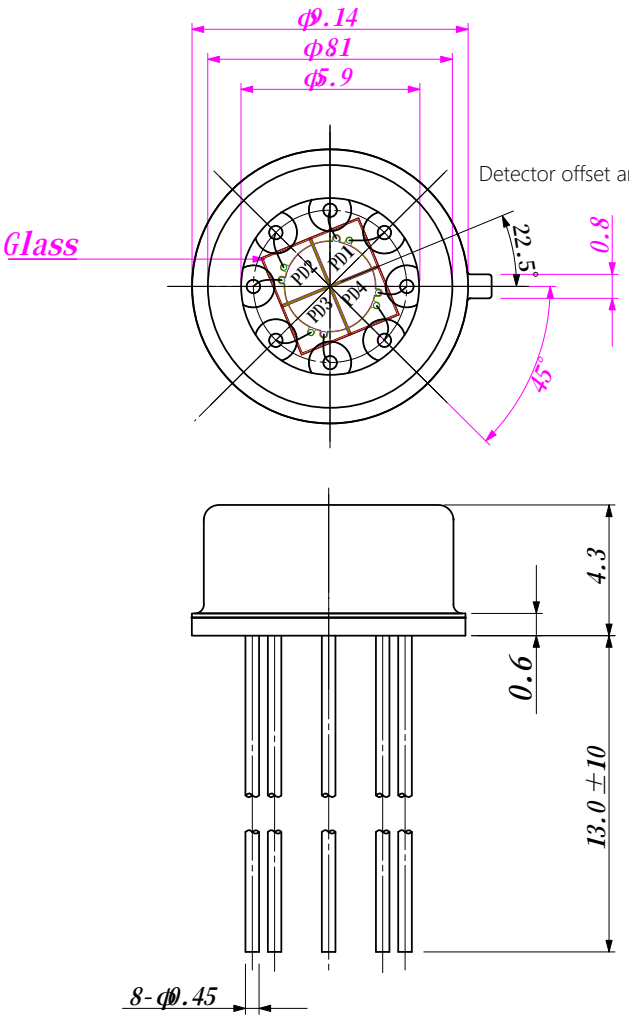

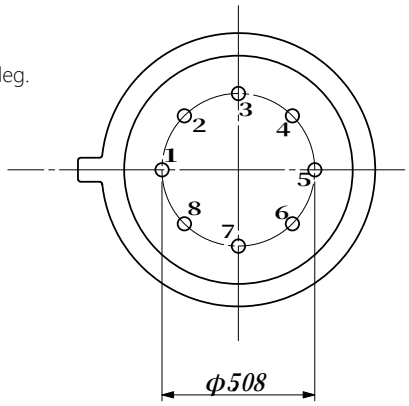

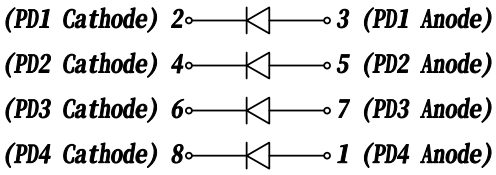

1- PD4 Anode
2- PD1 Cathode
3- PD1 Anode
4- PD2 Cathode
5- PD2 Anode
6- PD3 Cathode
7- PD3 Anode
8- PD4 Cathode

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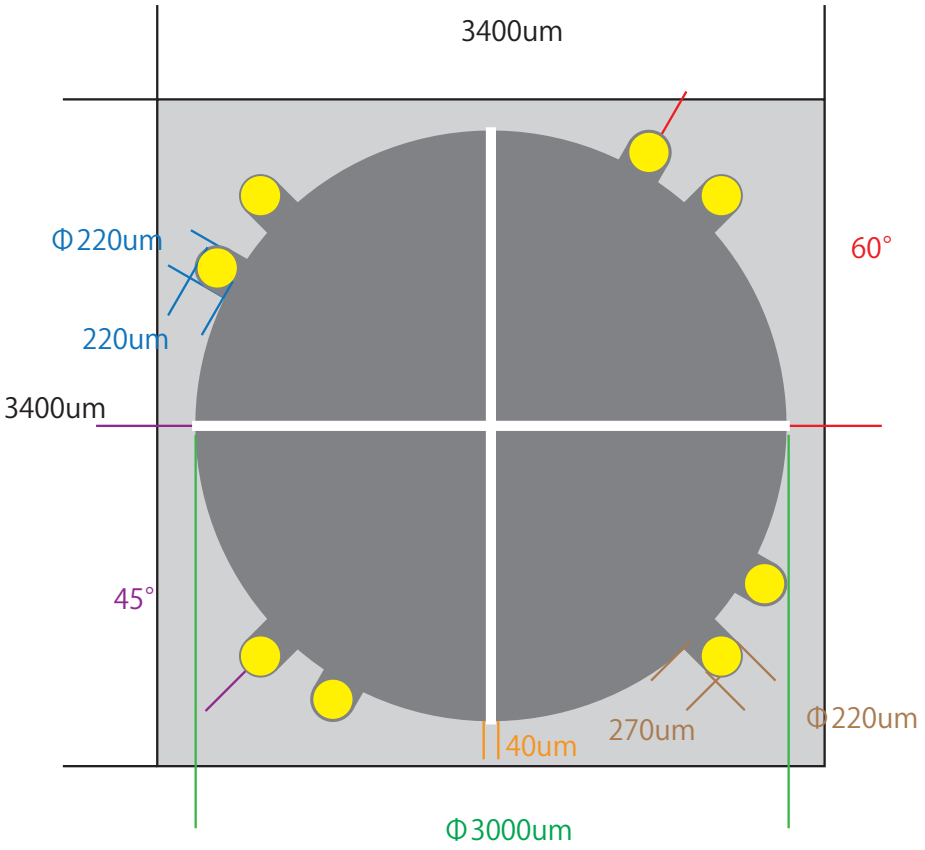

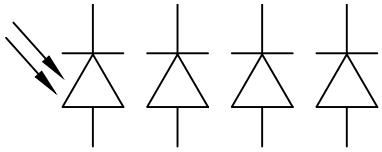

Notes:

1. Die is a PIN InGaAs quadrant photodiode with a 3.0mm diameter active area.
2. Topside anode & cathode metalization is gold.
   suitable for both gold and aluminum wire bonding.
3. No backside metalization.

RoHS COMPLIANT Pb-Free

We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

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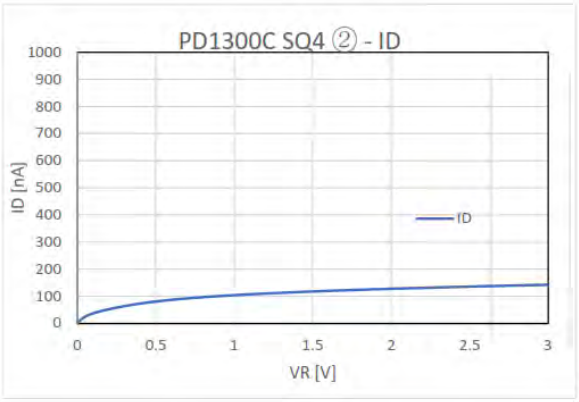

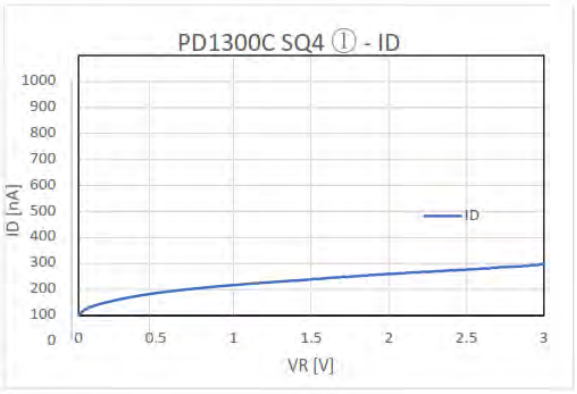

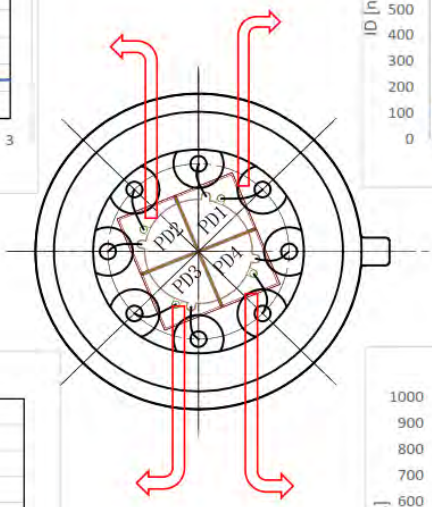

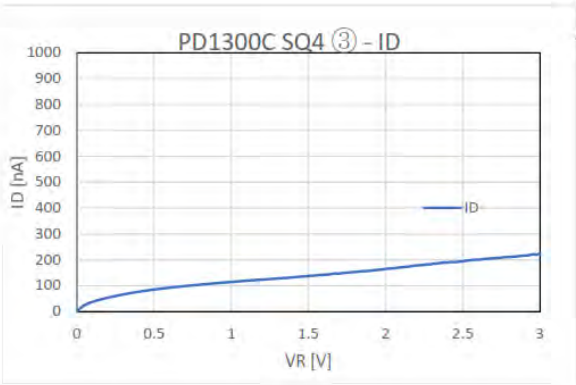

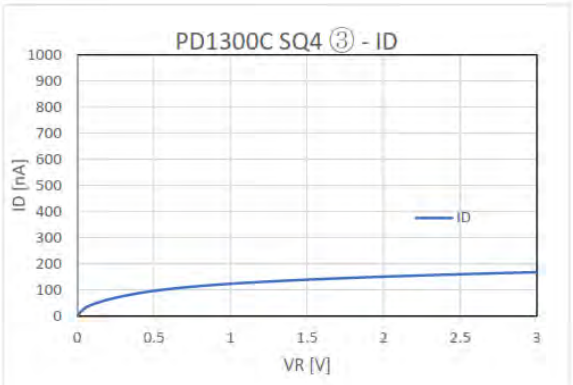

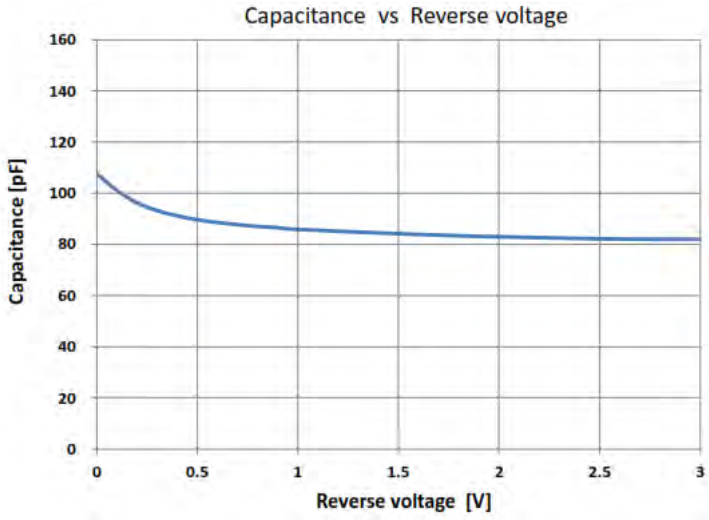

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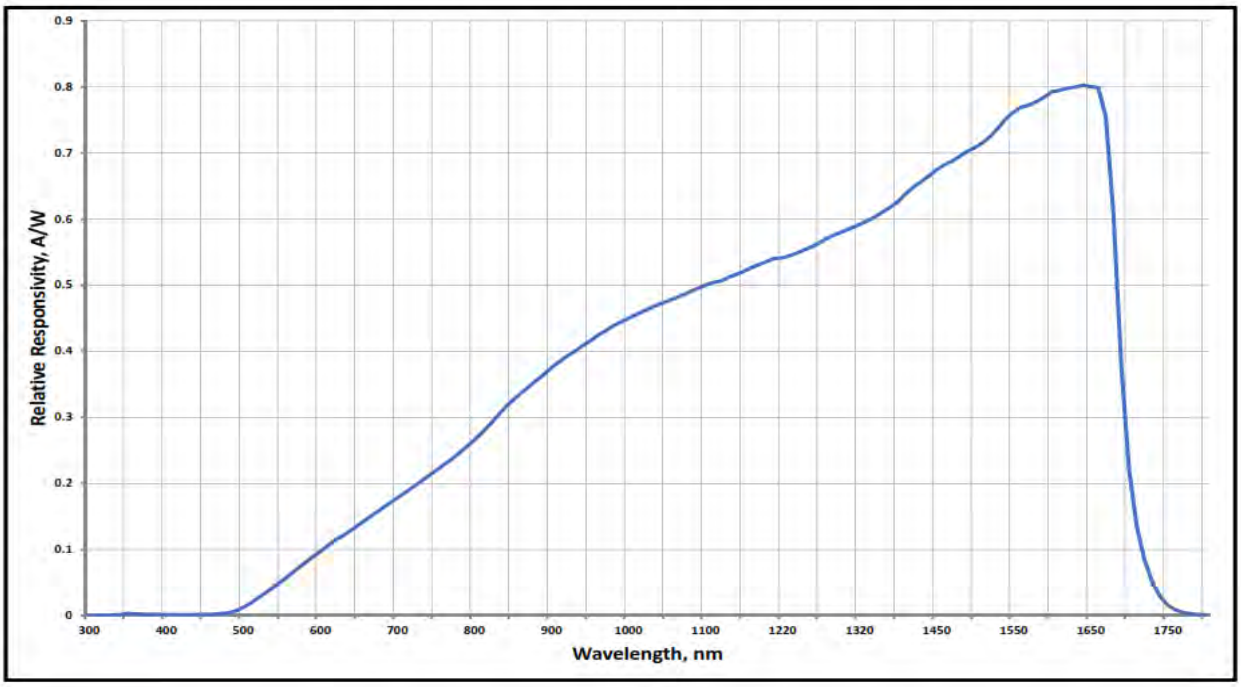
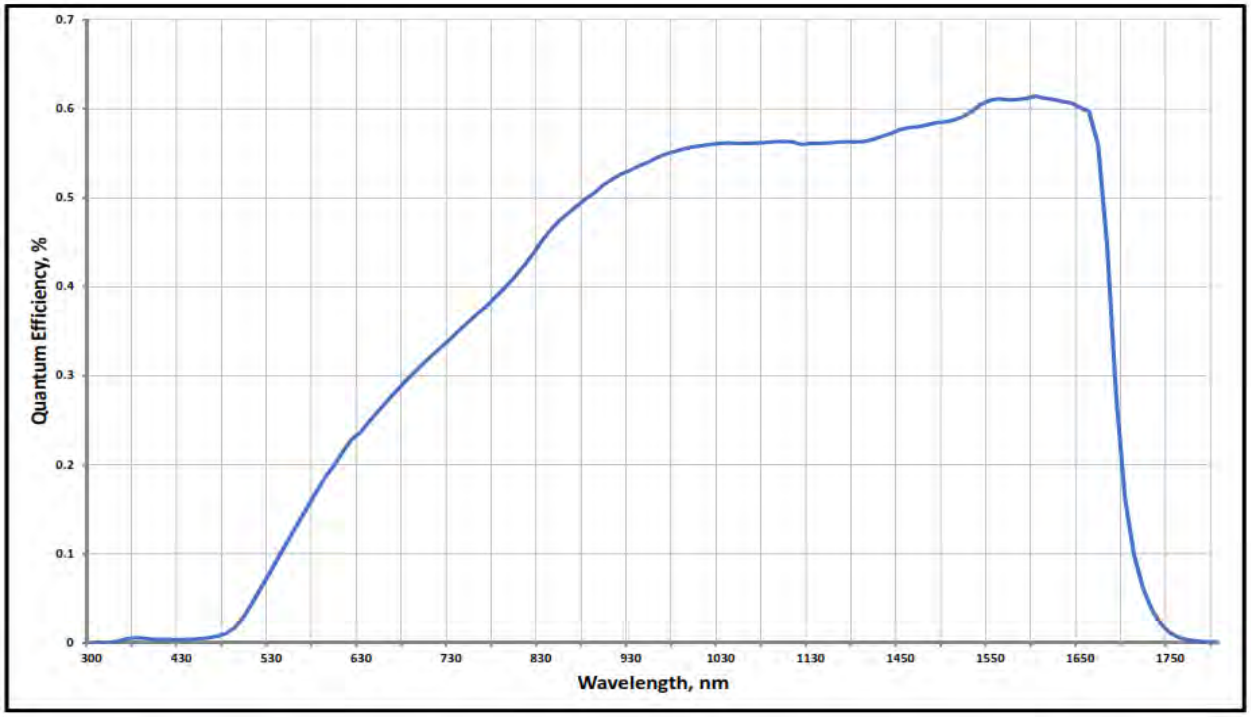
Responsivity



Quantum Efficiency



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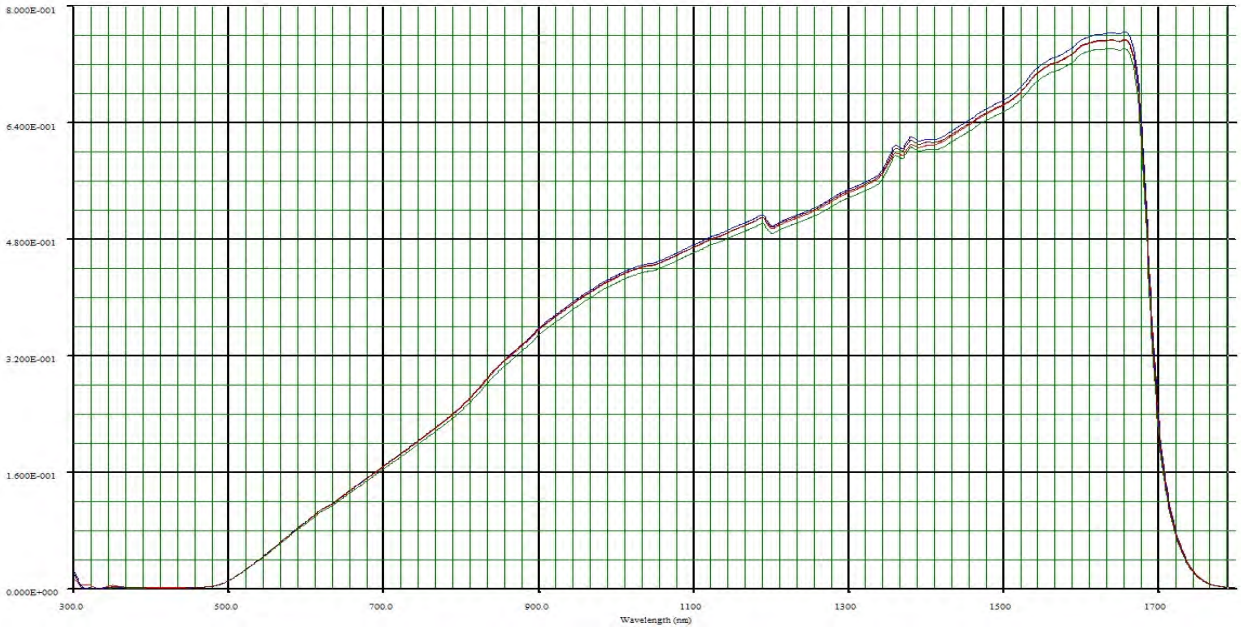
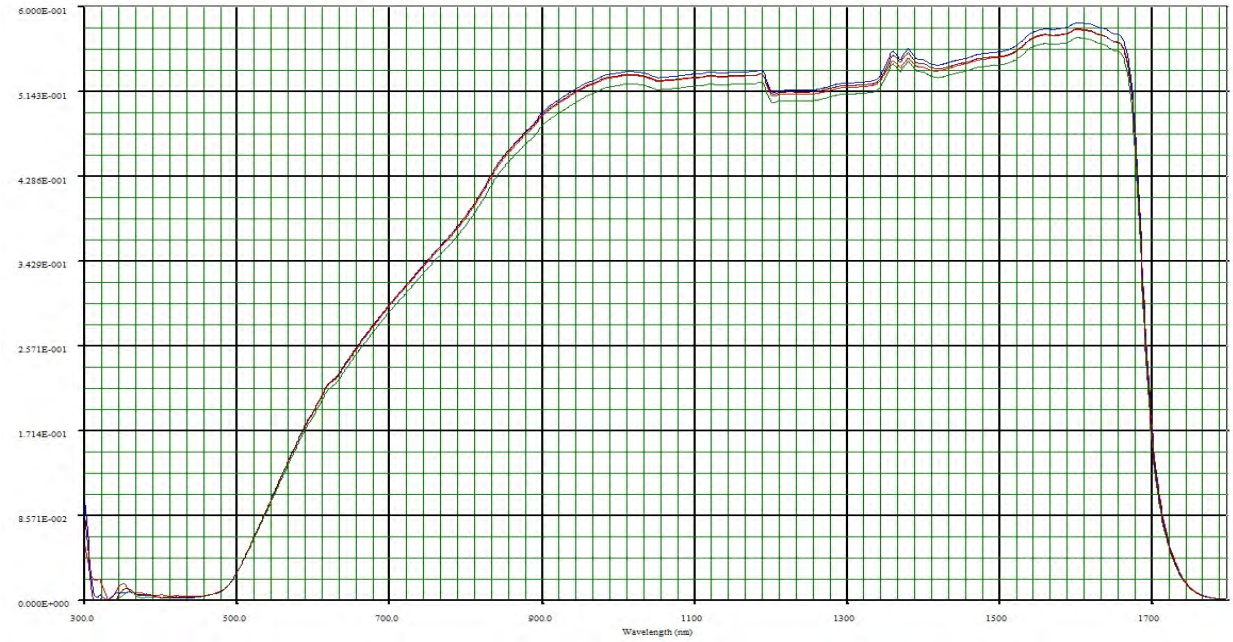
Responsivity 4 Quadrant Comparison (For Reference Only)



Quantum Efficiency 4 Quadrant Comparison (For Reference Only)



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