

Sensitivity Wavelength Range: 600nm ~ 1750nm

The 4346 series from Marktech, 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 - 1750nm

APPLICATIONS

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



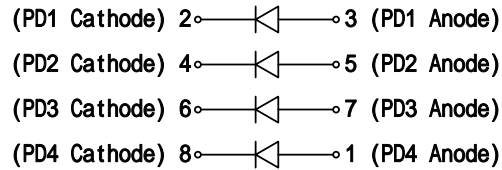
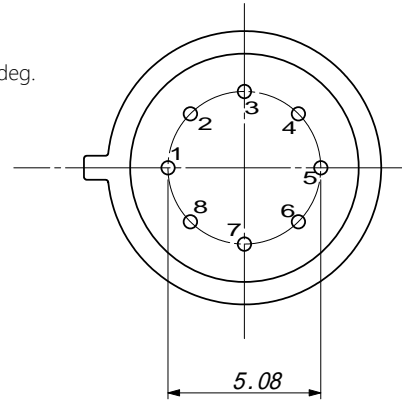
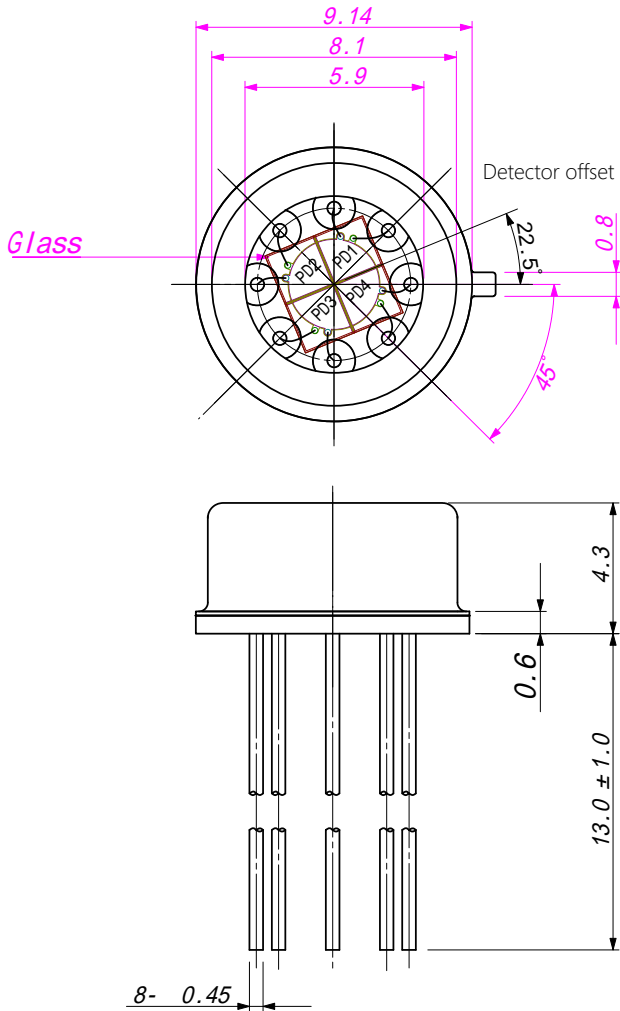
Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Active Area	Φ	3.0	mm
Operating Temperature Range	T _{opr}	-40 to +85	°C
Storage Temperature Range	T _{stg}	-40 to +125	°C

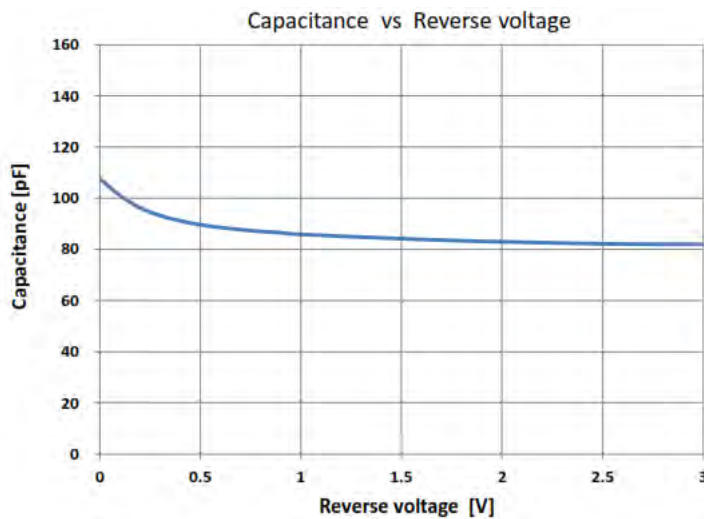
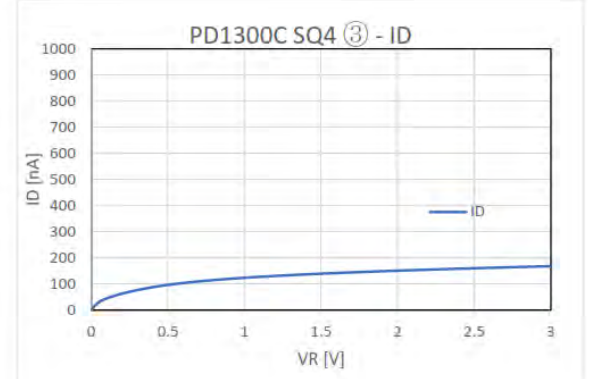
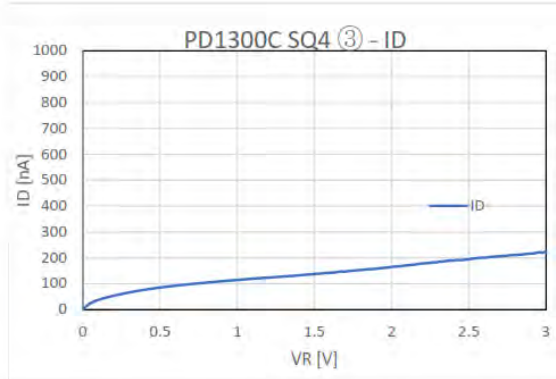
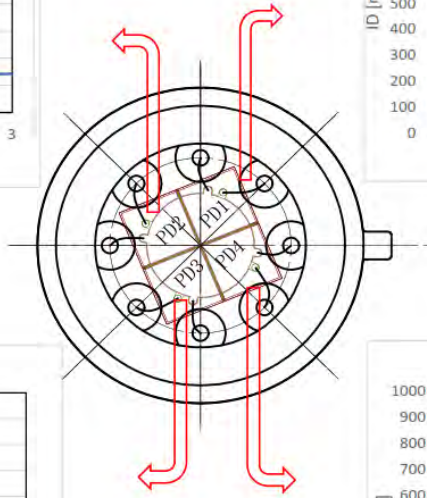
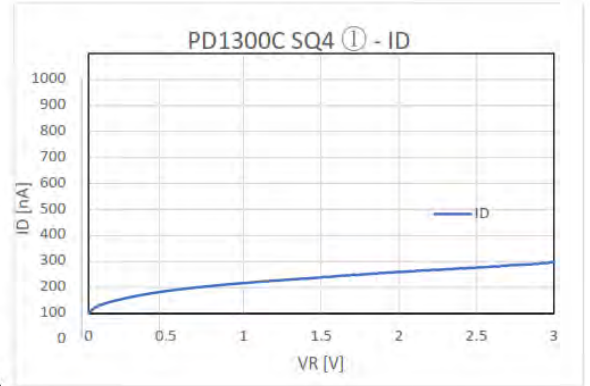
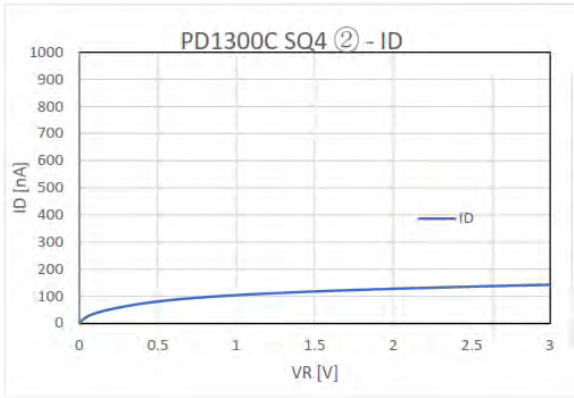
Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Dark Current	ID	VR=0V	--	0.13	--	nA
Wavelength Range	λ	VR=0V	600	--	1750	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=10mV, -10mV	--	1.43	--	MΩ
Capacitance	C	VR=0V; 1MHz	--	107	--	pF

*1: Device specifications are (Per Element)



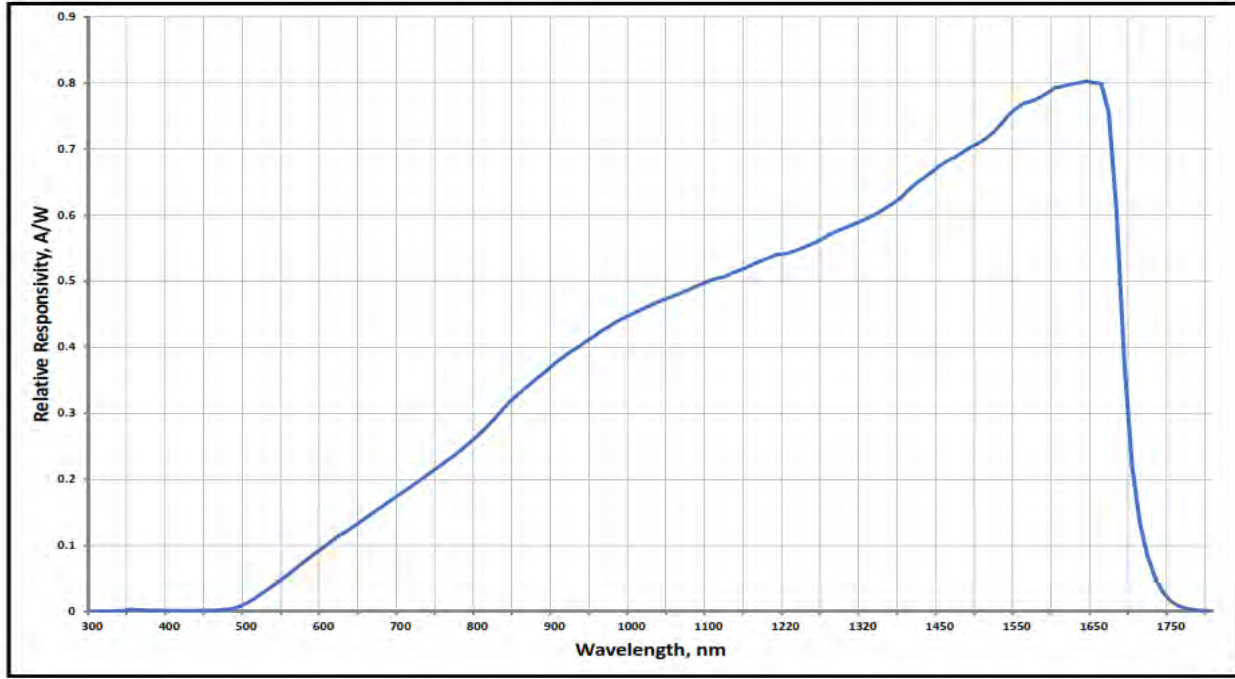
- 1- PD4 Anode
- 2- PD1 Cathode
- 3- PD1 Anode
- 4- PD2 Cathode
- 5- PD2 Anode
- 6- PD3 Cathode
- 7- PD3 Anode
- 8- PD4 Cathode



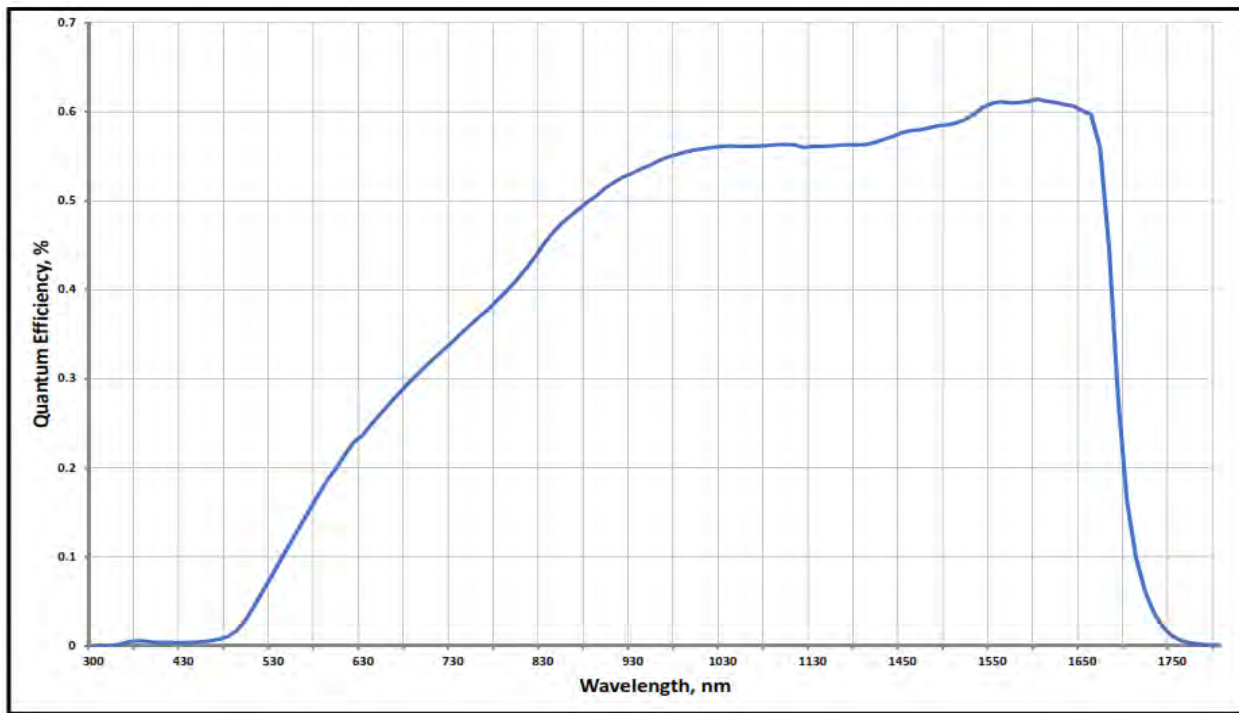
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Responsivity



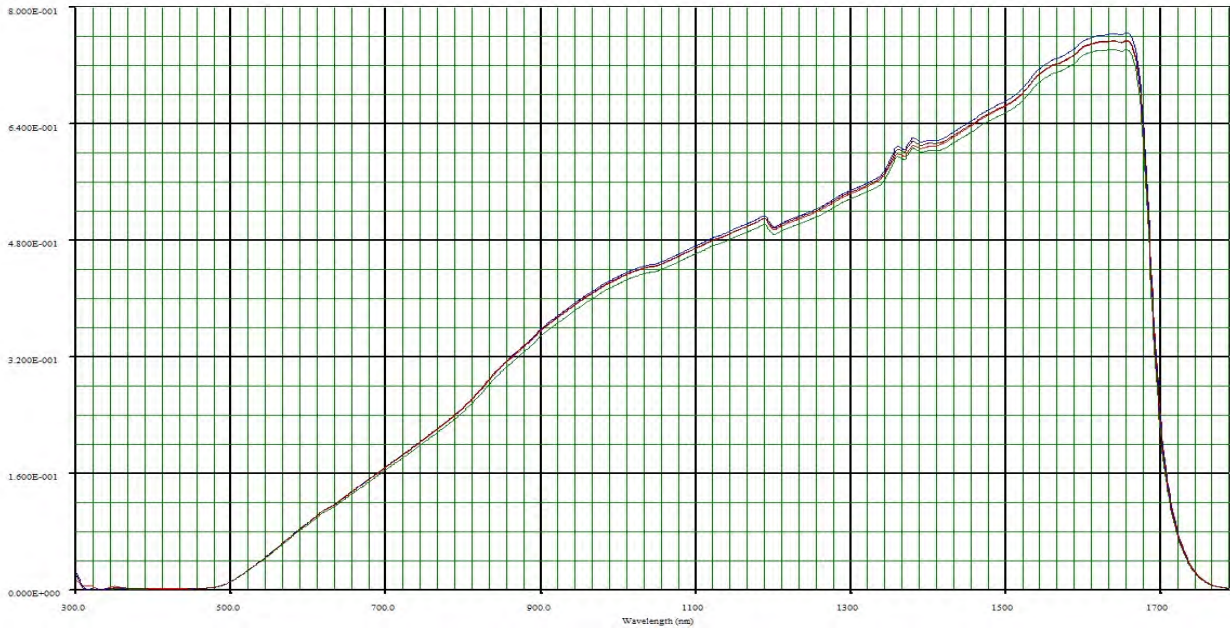
Quantum Efficiency



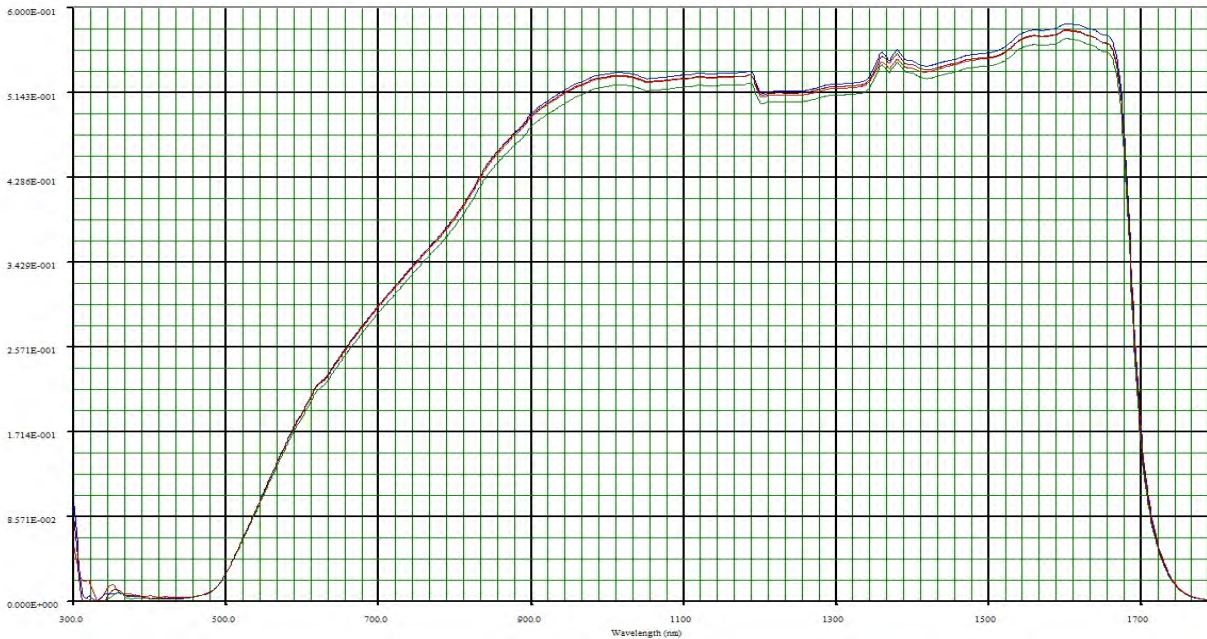
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Responsivity 4 Quadrant Comparison (For Reference Only)



Quantum Efficiency 4 Quadrant Comparison (For Reference Only)



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