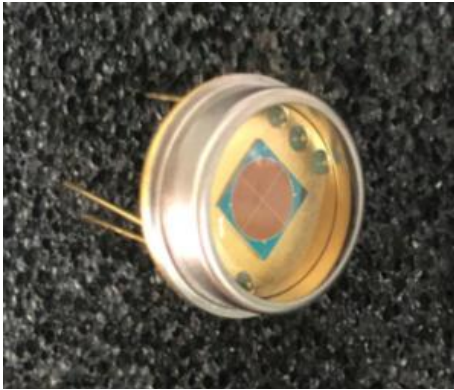


InGaAs QUADRANT PHOTODIODE



Description

5mm diameter Low Dark Current InGaAs Quadrant Photodiode with P on N construction and 30um gaps. Packaged in a TO-8 with a hermetic ultra flat fused silicon glass window cap.

Features

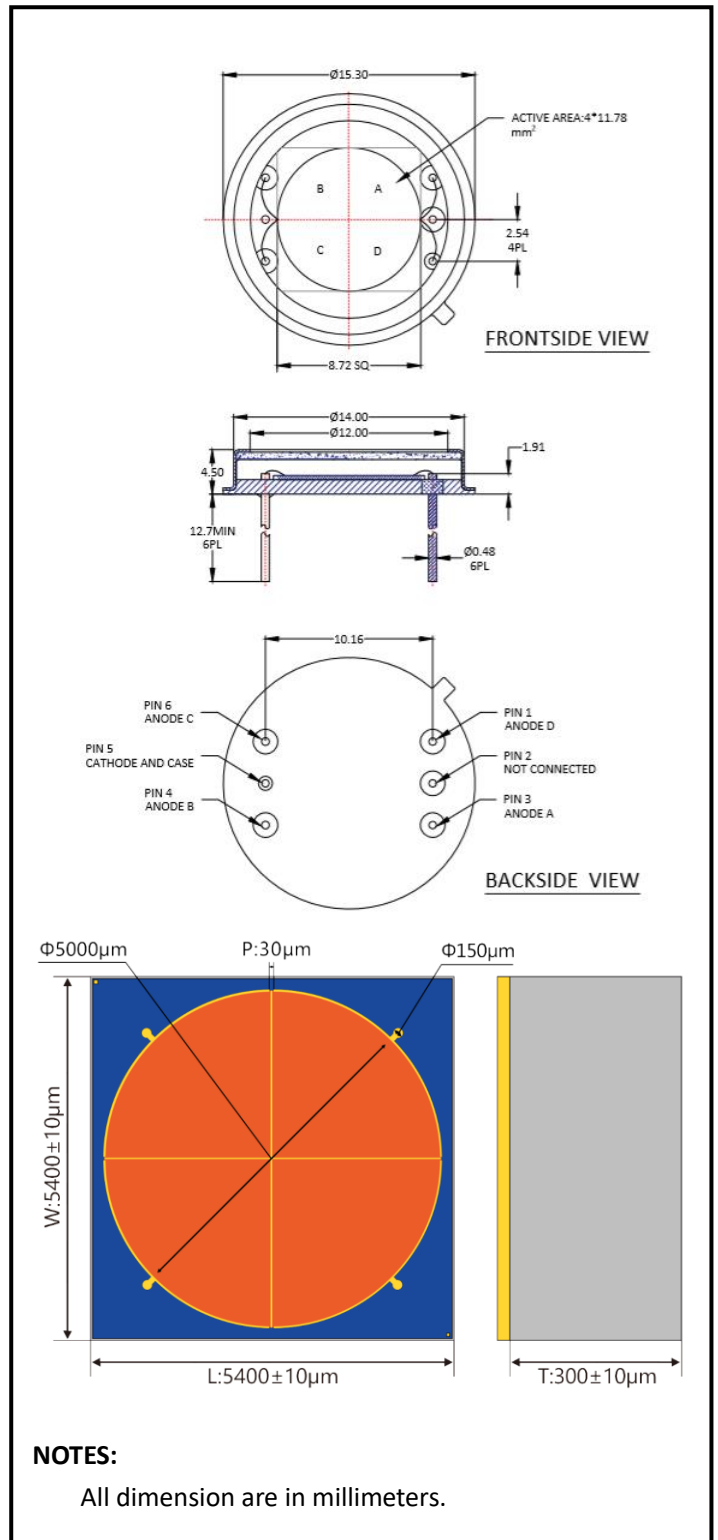
- * 5mm diameter active area
- * Small gap
- * Low dark current
- * Low crosstalk

General Ratings

- * High linearity
- * High reliability

Applications

- * Laser beam position sensor
- * Laser guidance
- * Optical tweezers



Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

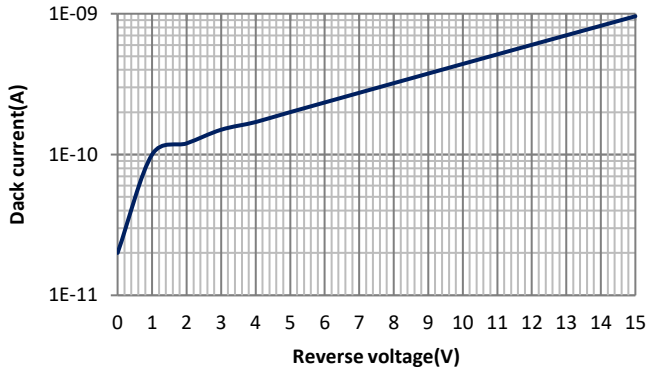


Absolute Maximum Ratings (Ta=25°C)

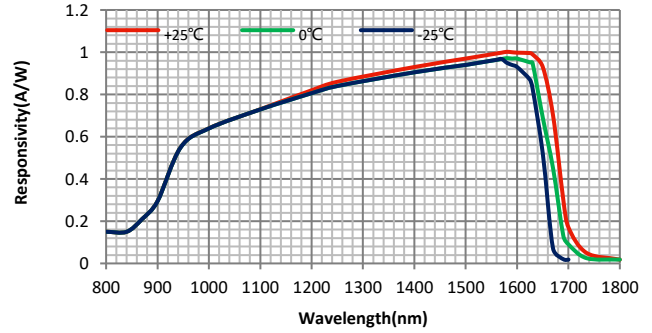
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	Dia.			Φ5		mm
Gap	d	element to element		30		um
Dark current	I _D			5	20	nA
Rise time	t _R	f=1MHz; λ=1550nm;VR=5V,R _i =50Ω		10		ns
Temp coefficient of I _D	T _{ClD}			0.18		times/°C
Reverse breakdown voltage	V _{(BR)R}	I _R =10μA Ev=0Ix	20			V
Junction Capacitance	C _J	V _R =0V f=1MHz		208		nF
		V _R =5V f=1MHz		300	1000	pF
Cross talk Channel- to -Channel		850-1700nm, Adjacent Channels,VR=5V			2	%
Uniformity of each Element	δ _{Re}	V _R =5V, λ =1500nm, φ e=10μW			2	%
Saturation power	L	V _R =5V,	10			mw
Photo sensitivity	S _R	1310nm		0.9		A/W
		1550nm		0.95		
Spectral Application Range	λ _{range}		800		1700	nm
Spectral Response-Peak	λ _p			1300		nm
Shunt resistance	R _{sh}	V _R =10mV	75			MΩ
Rsh Temperature Coefficient	TC R _{sh}	VR=10mV		0.18		%/°C
Angular Resp 50% Resp Pt	θ _{1/2}			±35		Degrees

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■ Dark current vs. reverse voltage

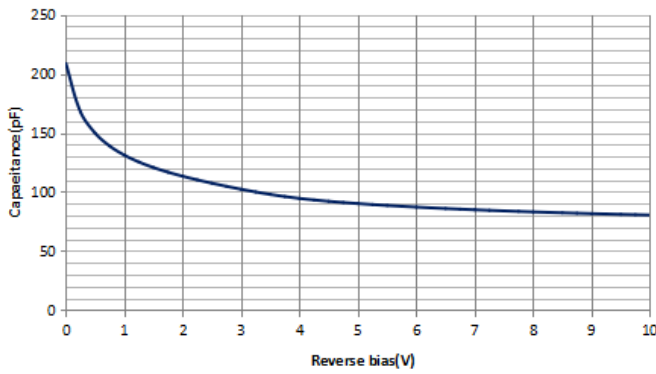


■ Spectral response



■ Relative Junction Capacitance

VS. Voltage



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