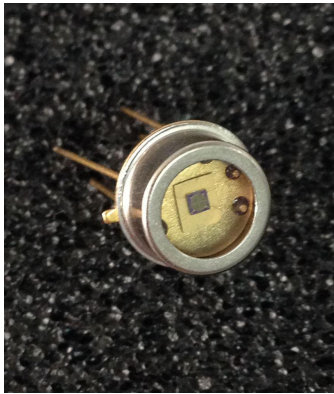


InGaAs QUADRANT PHOTODIODE



Description

1mm diameter Low Dark Current InGaAs Quadrant Photodiode with P on N construction and 20um gaps. Packaged in a TO-5 with a hermetic ultra flat fused silicon glass window cap.

Features

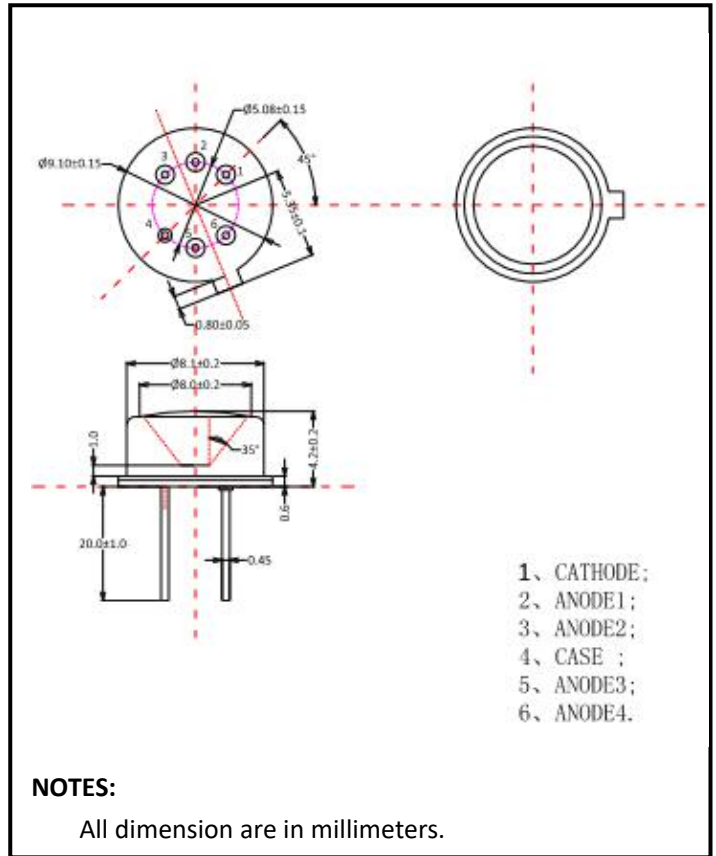
- * 1mm diameter active area
- * Small gap
- * Low dark current
- * Low crosstalk

General Ratings

- * High linearity
- * High reliability

Applications

- * Laser beam position sensor
- * Minuteness process controller
- * Optical tweezers
- * Laser guidance



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)

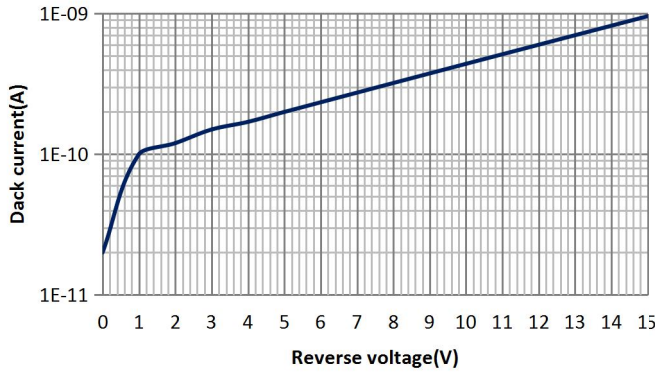
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	Dia.			Φ1		mm
Gap	d	element to element		20		um
Dark current	I _D			25	100	nA
Rise time	t _R	f=1MHz; λ=1550nm;VR=5V,R _i =50Ω		1	2	ns
Temp coefficient of I _D	T _{CID}			0.18		times/°C
Reverse breakdown voltage	V _{(BR)R}	I _R =10μA Ev=0lx	40			V
Junction Capacitance	C _J	V _R =0V f=1MHz		16.95		nF
		V _R =5V f=1MHz		8.6		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}			±55		Degrees

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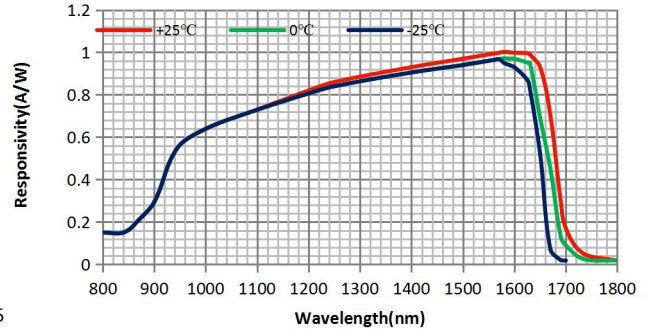


IGQ1000-IT

■ Dark current vs. reverse voltage

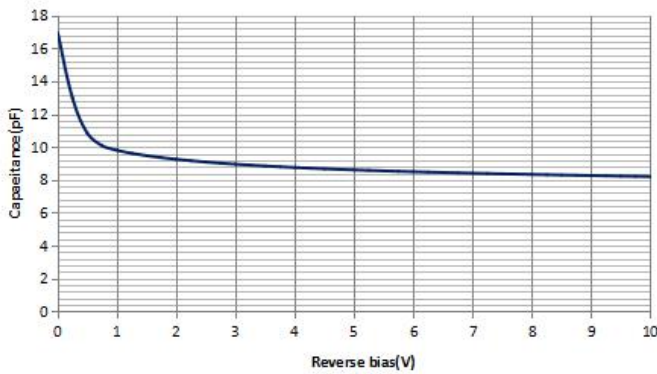


■ Spectral response



■ Relative Junction Capacitance

VS. Voltage



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