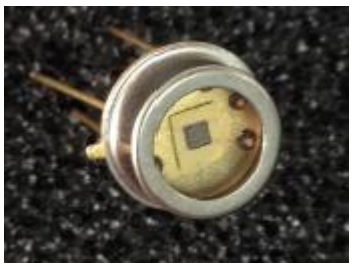
Quadrant 1,7µm InGaAs Photodiode

IGA1000Q-IT 1,0mm dia active area, 800nm – 1700nm

Stand 2026



Description

1mm dia active area low dark current InGaAs Quadrant Photodiode with a P on N construction and 20µm wide gaps. It is packaged in aTO5 with a hermetic ultra flat fused silicon window cap.

Features

- 1 mm dia active area
- Small gap
- Low dark current
- Low crosstalk
- Planar structure MN+ InP substrate with 4 top anode contact

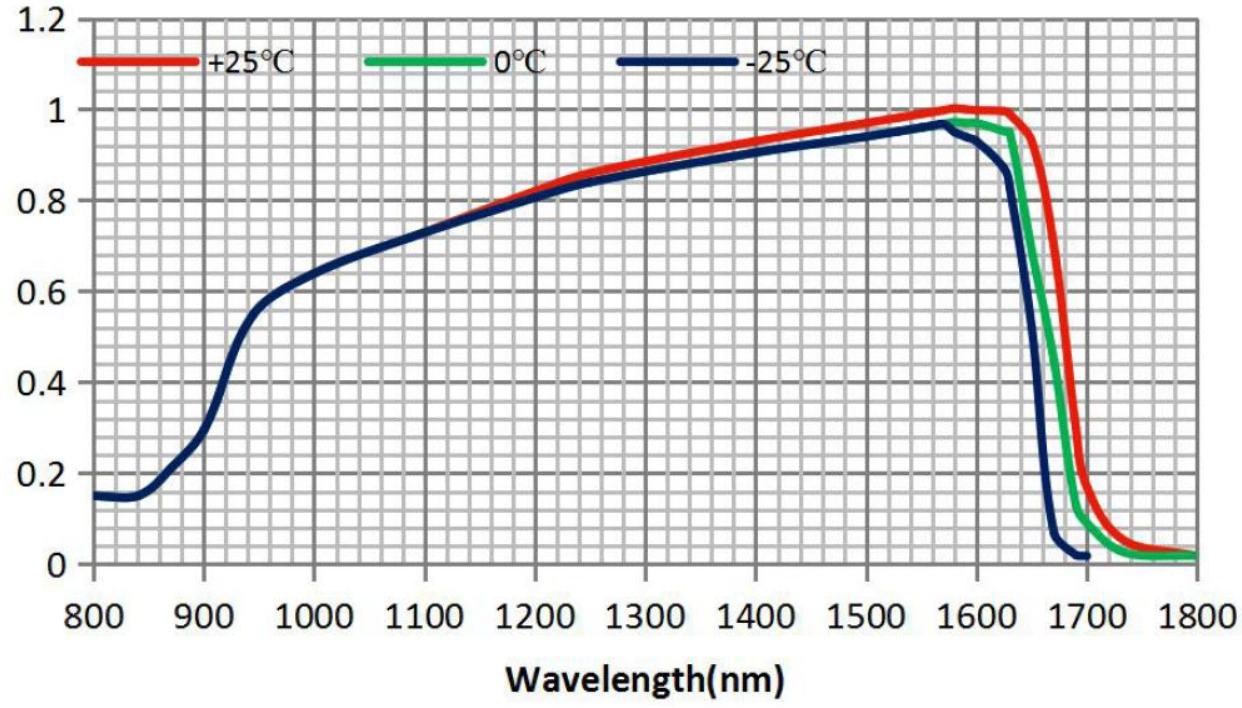
General Ratings

- High linearity
- High reliability

Applications

- Laser beam position sensors
- Optical tweezers
- Laser guidance
- Temperature measurement
- Process controlling

Spectral Response



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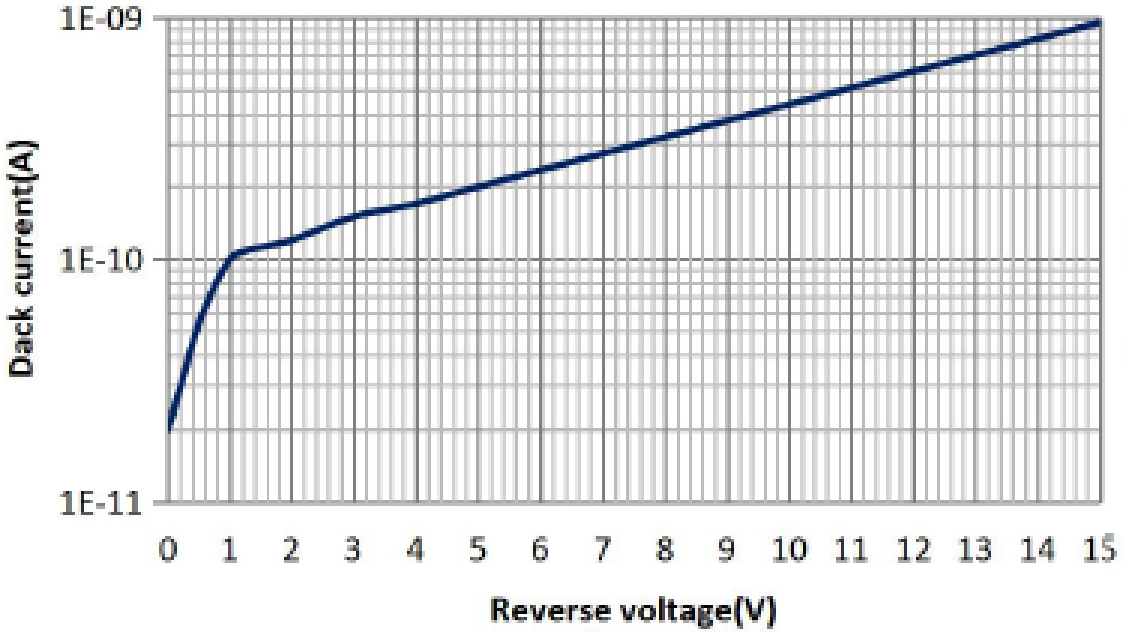
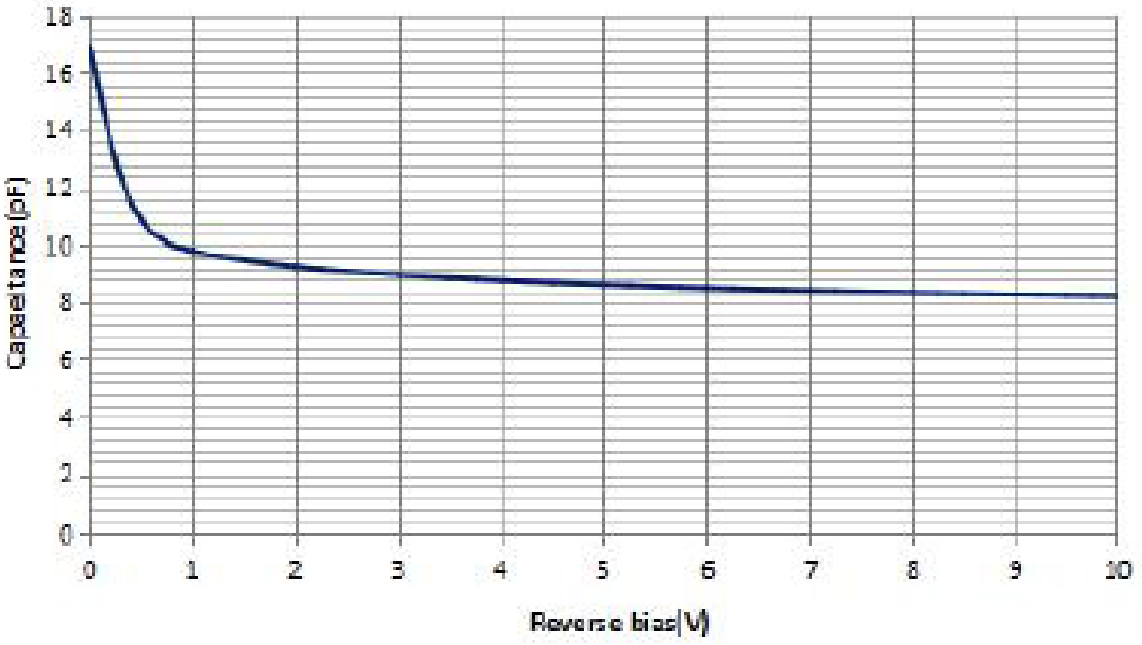
Dark Current versus Reverse Bias Voltage



Relative Junction Capacitance versus Bias Voltage



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E-O Parameters and Maximum Ratings (@+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_L=50Ω		1	2	ns
Temp coefficient of I_D	T_{CID}			0.18		times/℃
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, Φe=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		%/℃
Angular Resp 50% Resp Pt	$\theta_{1/2}$			±55		Degrees

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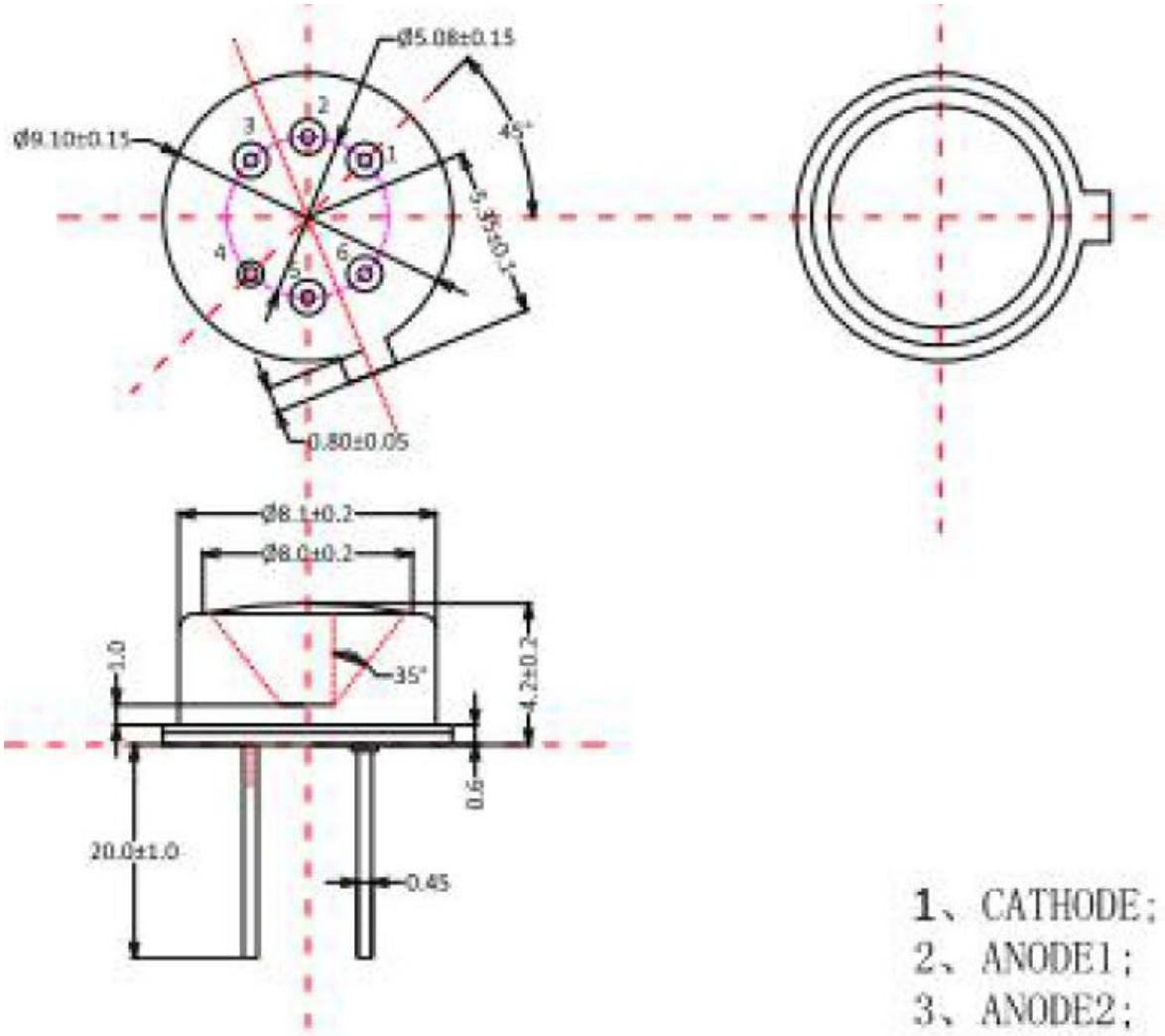
Package



All Dimensions in “mm”.

The information in this data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omissions. The specifications are subject to change without notice.

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