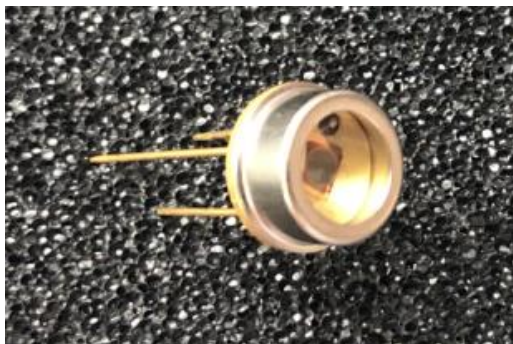


## Wide spectral response range

### InGaAs PIN Photodiode

### IGA2000-VT



## Description

IGA2000-VT covers a wide spectral response from 0.3um To 1.7um. While standard InGaAs PIN photodiode has spectral Response ranging from 0.9um to 1.7um, IGA2000-VT has sensitivity extending to 0.3um on the short wavelength side.

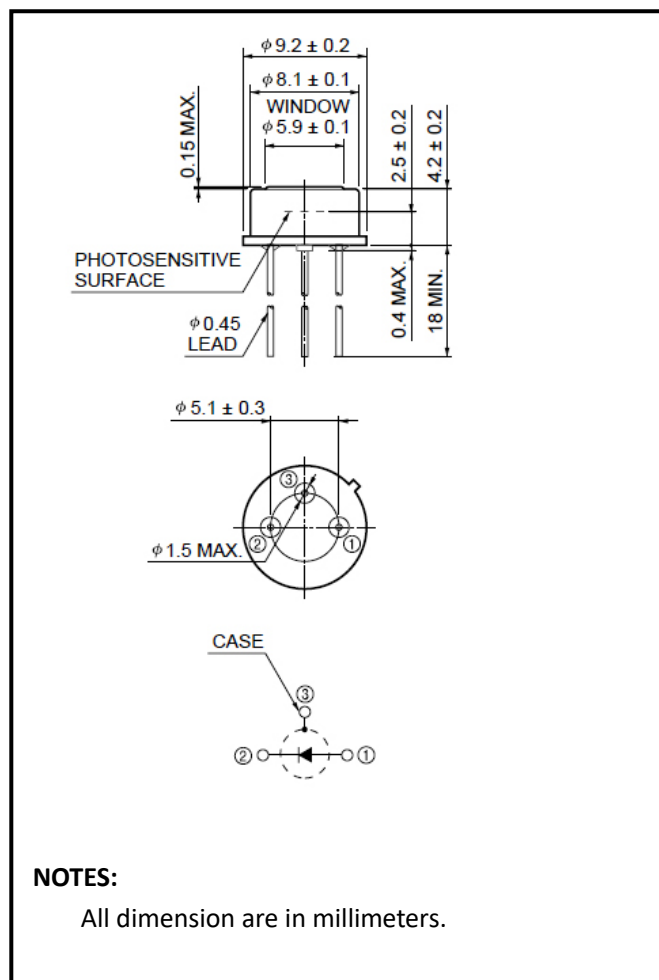
We can also custom type according to customer chip size or Package style enquiry.

## Features

- \* Wide spectral response range
- \* Low noise, low dark current
- \* Large active area available

## Applications

- \* Optical Instrumentation
- \* NIR Sensing
- \* Laser Power Measurement
- \* Power meters



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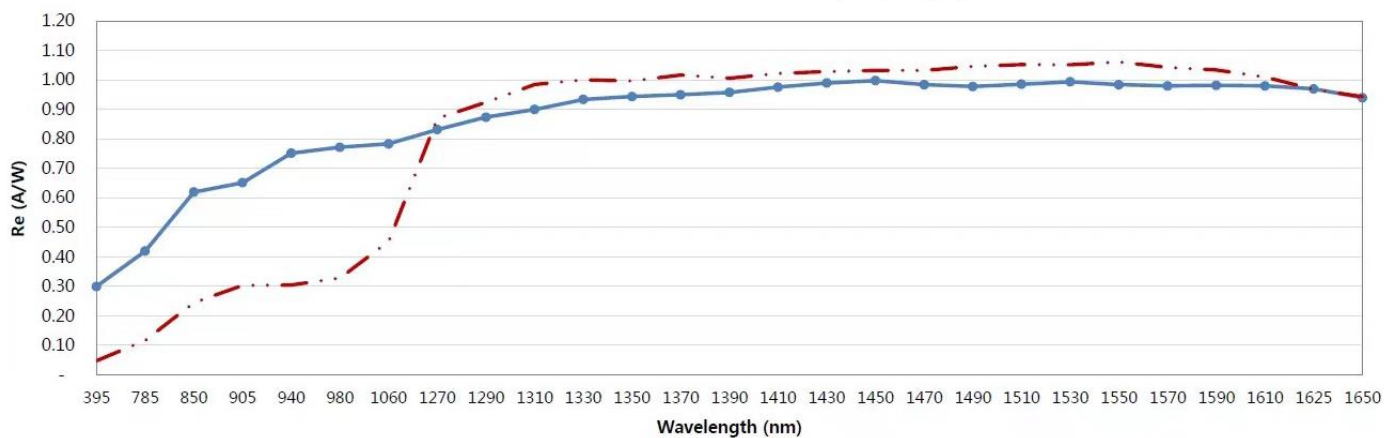


## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	s	2.2*2.2				um
Active area	A	Φ2000				um
Forward current	I <sub>F</sub>	10				mA
Reverse current	I <sub>R</sub>	10				mA
Dark current	I <sub>D</sub>	V <sub>R</sub> =0V		0.76		nA
		V <sub>R</sub> =1V		0.80		
Rise time	t <sub>R</sub>	V <sub>R</sub> =0V; R <sub>L</sub> =50Ω, f=1MHz		25	35	ns
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1mA			1	V
Reverse breakdown voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =10μA E <sub>v</sub> =0lx	2			V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V f=1MHz		210		pF
Photo sensitivity	S <sub>R</sub>	V <sub>R</sub> =0.1V, λ= 650nm	0.35			A/W
		V <sub>R</sub> =0.1V, λ= 850nm	0.65			
		V <sub>R</sub> =0.1V, λ= 1310nm	0.90			
Spectral Application Range	λ <sub>range</sub>		300		1700	nm
Spectral Response-Peak	λ <sub>p</sub>			1550		nm
Shunt resistance	R <sub>sh</sub>	V <sub>R</sub> =10mV		2.5		MΩ
-3dB Bandwidth	BW	V <sub>R</sub> =0.1V; R <sub>L</sub> =50Ω		2		MHz
		V <sub>R</sub> =1V; R <sub>L</sub> =50Ω		5	10	
Angular Resp 50% Resp Pt	θ <sub>1/2</sub>			±35		Degrees
Noise Equivalent Power	NEP	V <sub>R</sub> =5V λ=1550nm		2.16×10 <sup>-14</sup>		W/Hz <sup>1/2</sup>

### ■ Spectral response

**Pin=-3dBm, VR=5V**

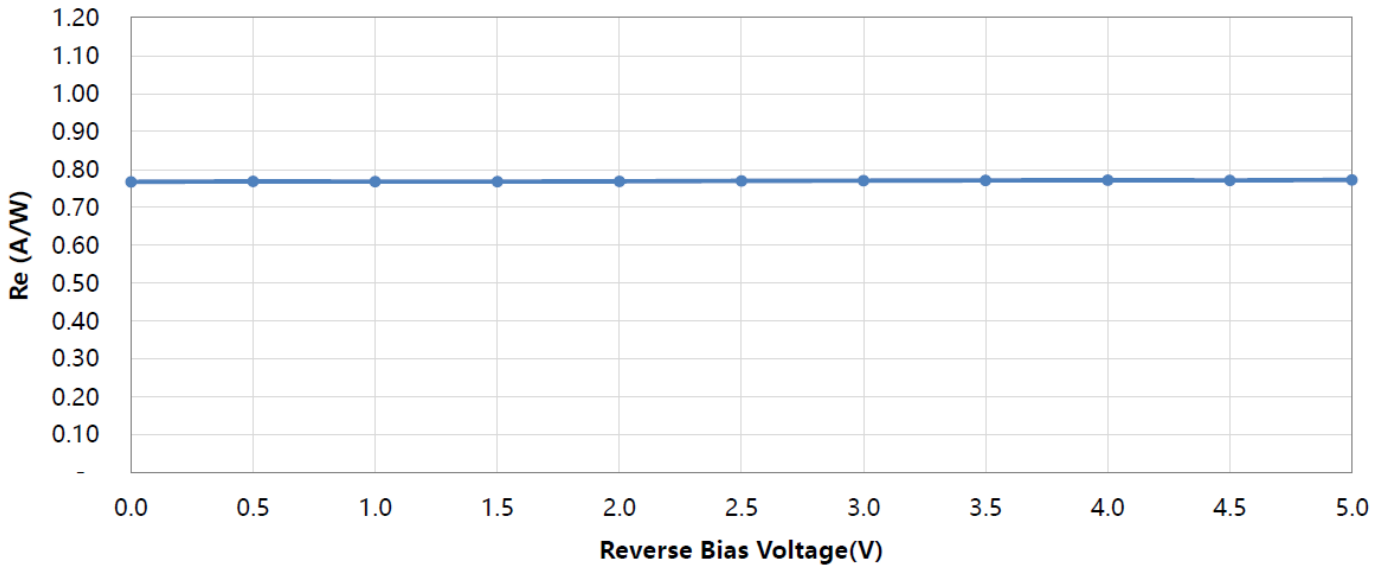


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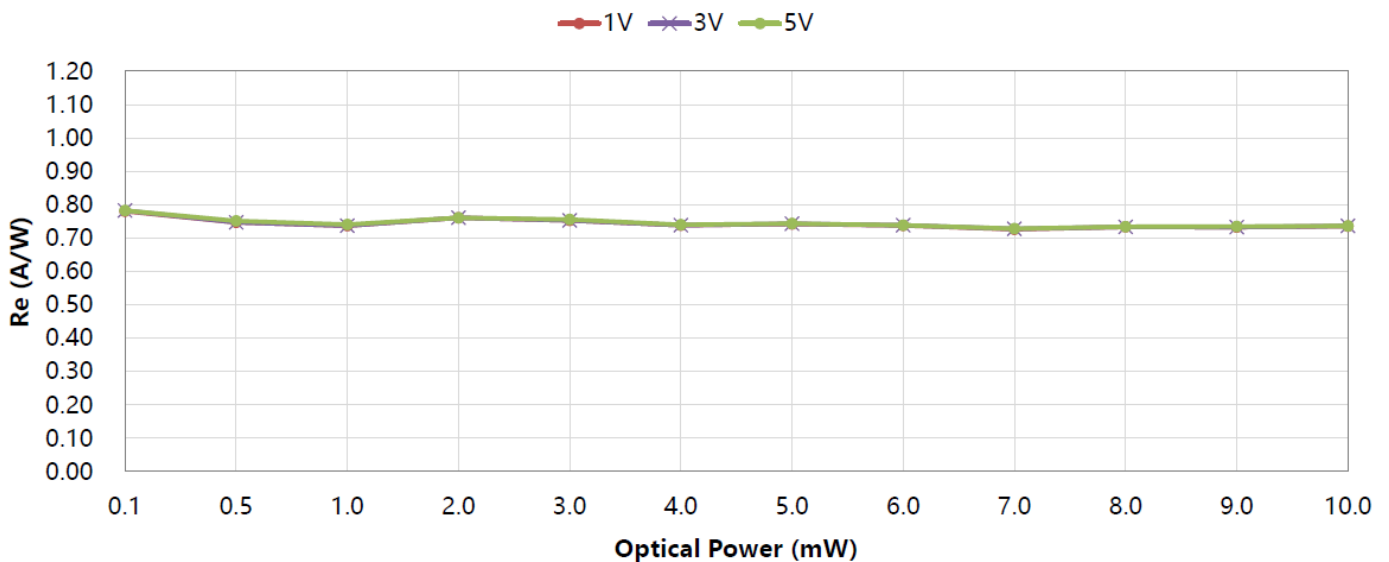
Ta=22±3 °C, λ=940nm, Pin=-3dBm

## Responsivity VS Reverse Bias Voltage



Ta=22±3 °C, λ=940nm

## Responsivity VS Optical Power



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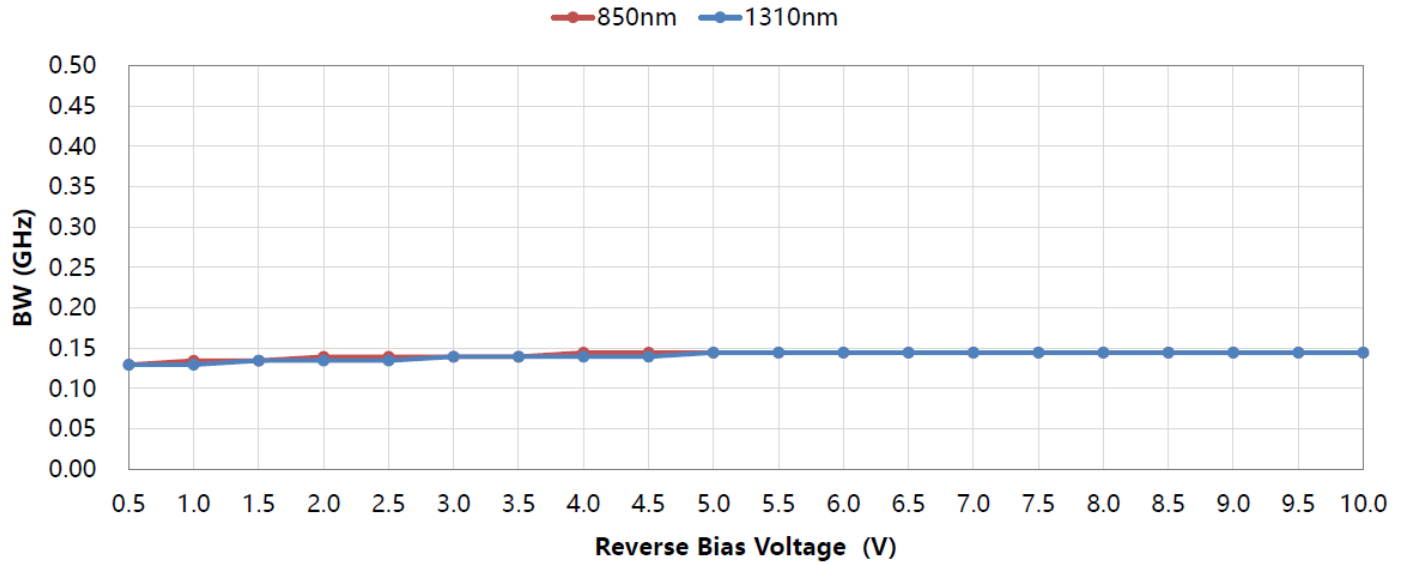
EMAIL: [otron.sensor@gmail.com](mailto:otron.sensor@gmail.com)

<http://www.e-otron.com>



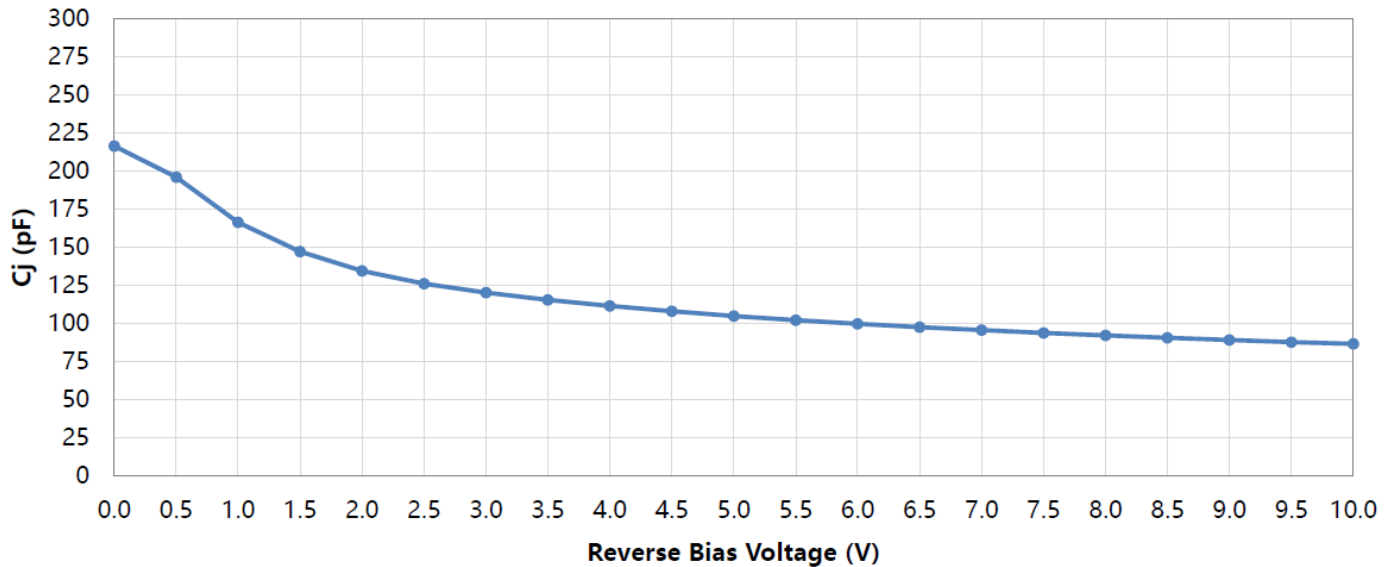
Ta=22±3 °C, λ=940nm, Pin= -3dB, RL=50, Cut-off: -3dB

## Bandwidth VS Reverse Bias Voltage



Ta=22±3 °C, f=1MHz

## Capacitance VS Reverse Bias Voltage



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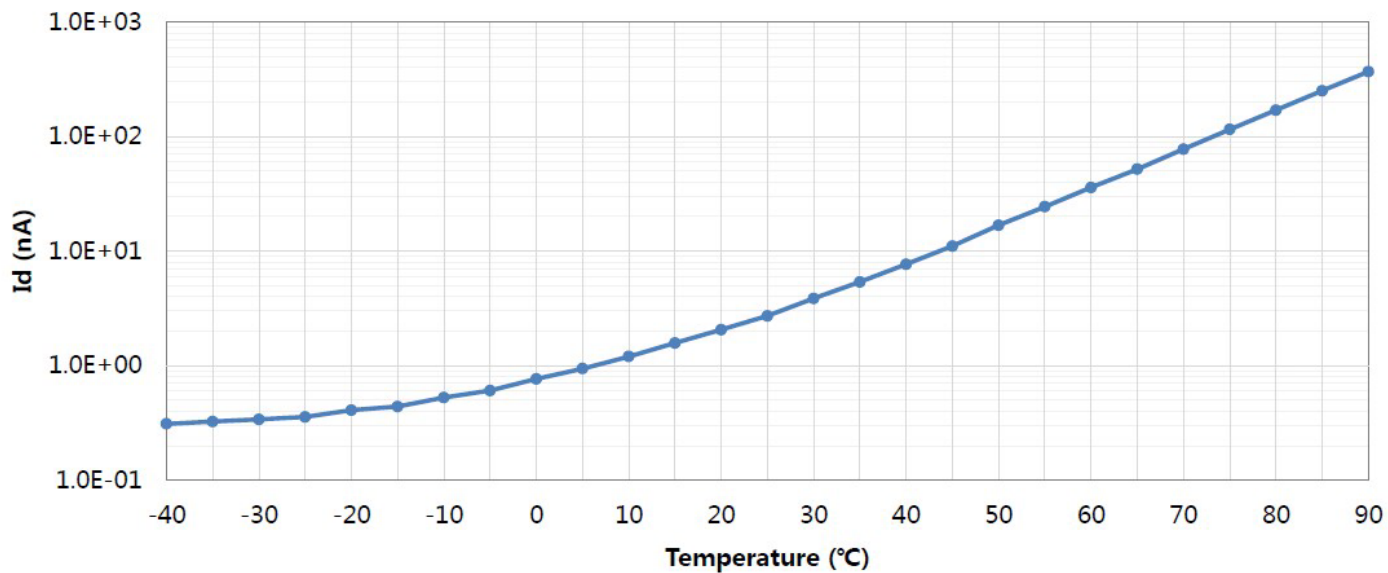
FAX:+86-21-54971823

EMAIL: [otron.sensor@gmail.com](mailto:otron.sensor@gmail.com)

<http://www.e-otron.com>

Ta=22±3°C, VR=5V

## Dark Current VS Temperature



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