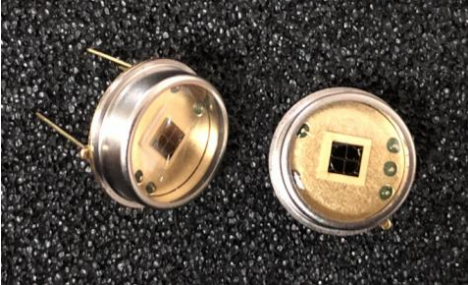


## InGaAs APD QUADRANT PHOTODIODE



### Description

3mm diameter Low Dark Current InGaAs APD Quadrant Photodiode with P on N construction and 100um gaps. Packaged in a TO-8.

### Features

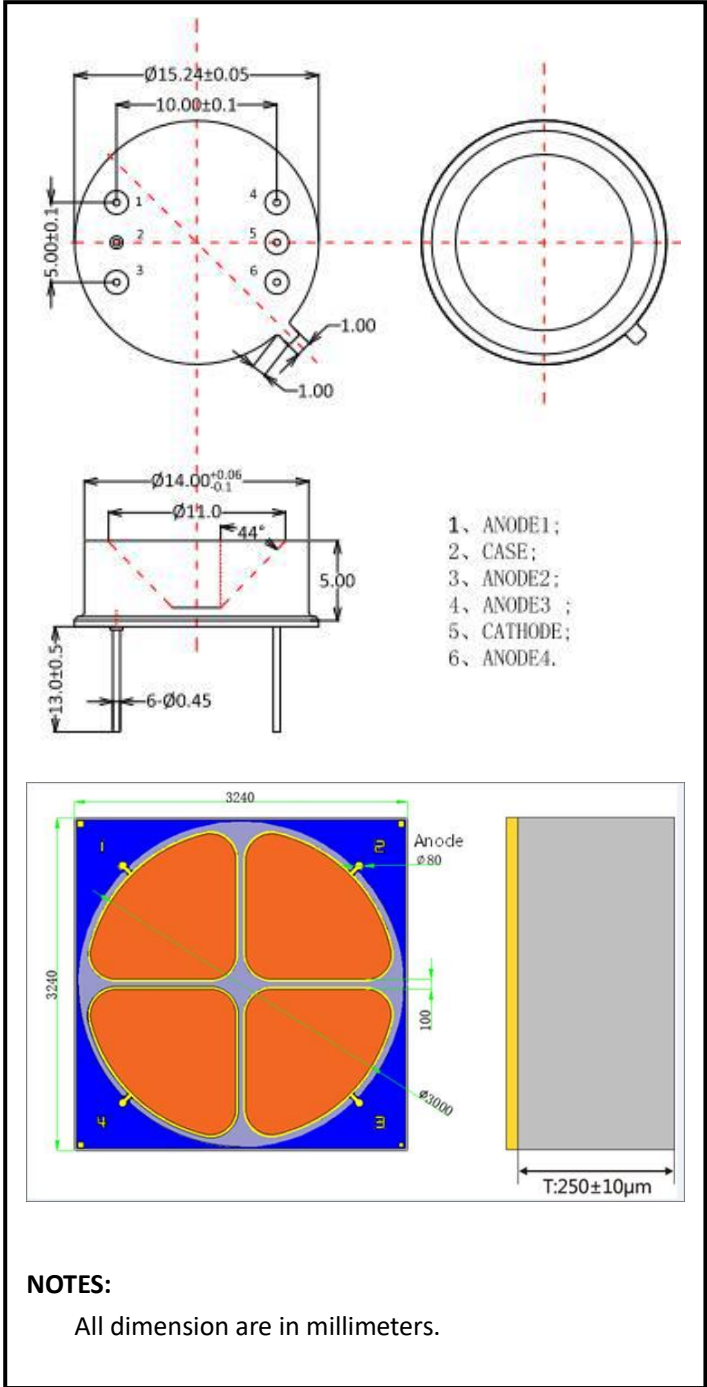
- \* 3mm diameter active area
- \* Small gap
- \* Low dark current
- \* Low crosstalk

### General Ratings

- \* High linearity
- \* High reliability

### Applications

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



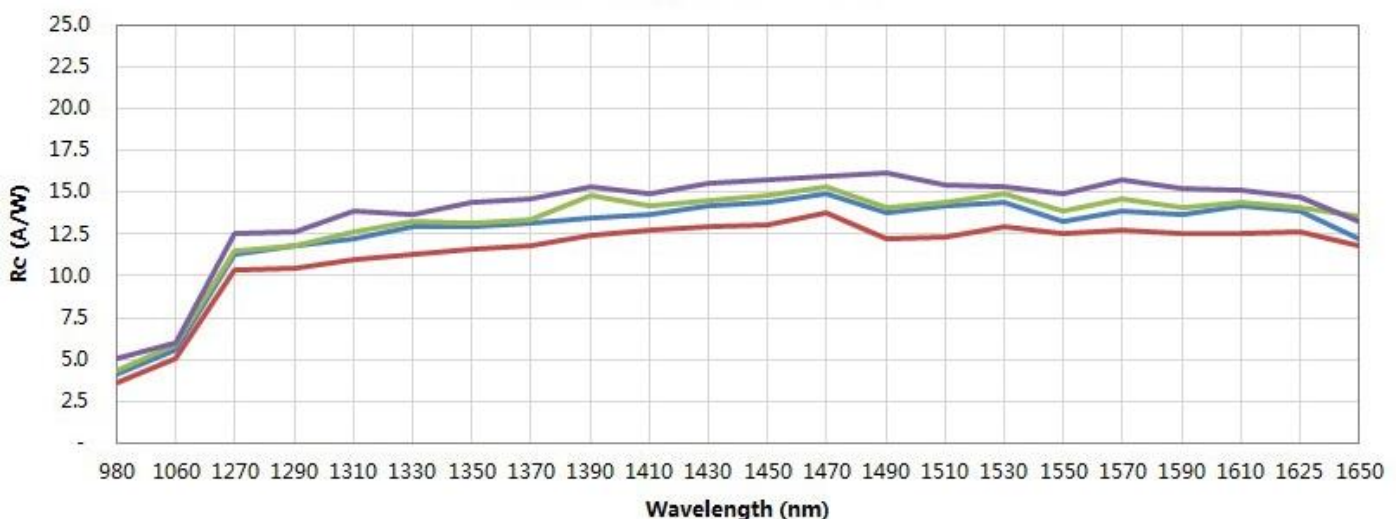
Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice



## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size				3.24*3.24		mm
Active area	Dia.			Φ3		
Gap	d	element to element		100		um
Dark current	I <sub>D</sub>	M=10		40	150	nA
Maximum multiplication gain	M		10			
Reverse breakdown voltage	U <sub>br</sub>	I <sub>R</sub> =10uA	35		55	V
Operating voltage	U <sub>r</sub>			0.90*U <sub>br</sub>		
Rise time	t <sub>R</sub>	M=10; λ=1550nm, R <sub>L</sub> =50Ω		20	35	ns
Temp coefficient of I <sub>D</sub>	T <sub>CID</sub>	T <sub>C</sub> =-40~+85°C		0.10	0.15	V/°C
Junction Capacitance	C <sub>J</sub>	f=1MHz, M=1, U <sub>b</sub> =35V		85	90	pF
Cross talk Channel- to -Channel		850-1700nm, Adjacent Channels, M=10			10	%
Uniformity of each Element	δ <sub>Re</sub>	V <sub>R</sub> =5V, λ =1500nm, φ e=1μW, M=10			5	%
Saturation power	L	V <sub>R</sub> =5V, M=10	1			mw
Photo sensitivity	S <sub>R</sub>	1310nm, M=10	10		15	A/W
		1550nm, M=10	14		16	
Spectral Application Range	λ <sub>range</sub>		800		1700	nm
Angular Resp 50% Resp Pt	θ <sub>1/2</sub>			±55		Degrees

## ■ Spectral response



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

OTRON ELECTRONIC TECHNOLOGY CO., LTD

TEL:+86-21-54971821

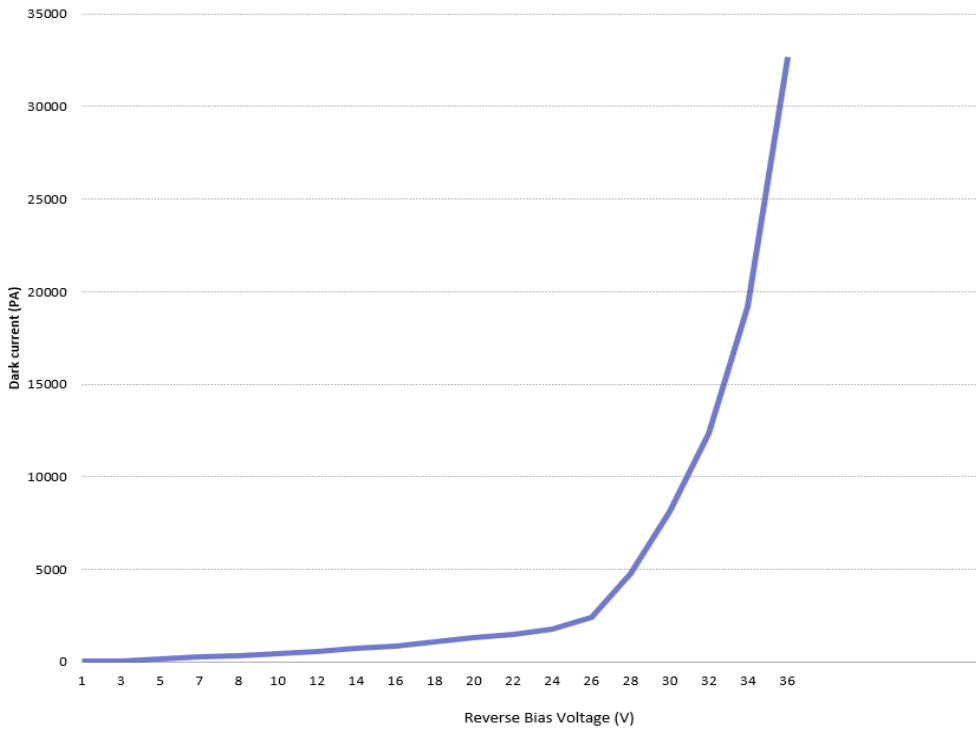
FAX:+86-21-54971823

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

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



## ■ Dark current Vs. Bias Voltage



## ■ Capacitor Vs. Bias Voltage

