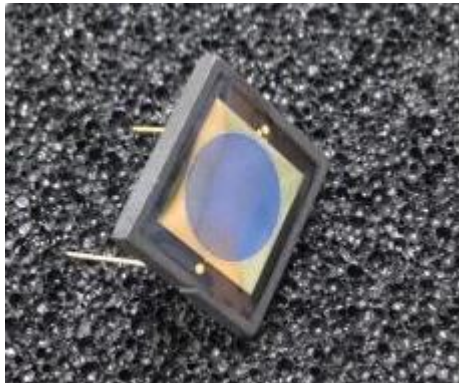


InGaAs PIN Photodiode

IGA10000-IC



Description

OTRON SENSOR IGA10000 is a type of active area size of 10mm diameter active area IR sensitive detectors which exhibit excellent responsivity from 850nm to 1680nm, allowing high sensitivity to weak signals. These large active area devices are ideal for use in infrared instrumentation and monitoring applications. We can also custom type according to customer chip size or Package style enquiry.

Features

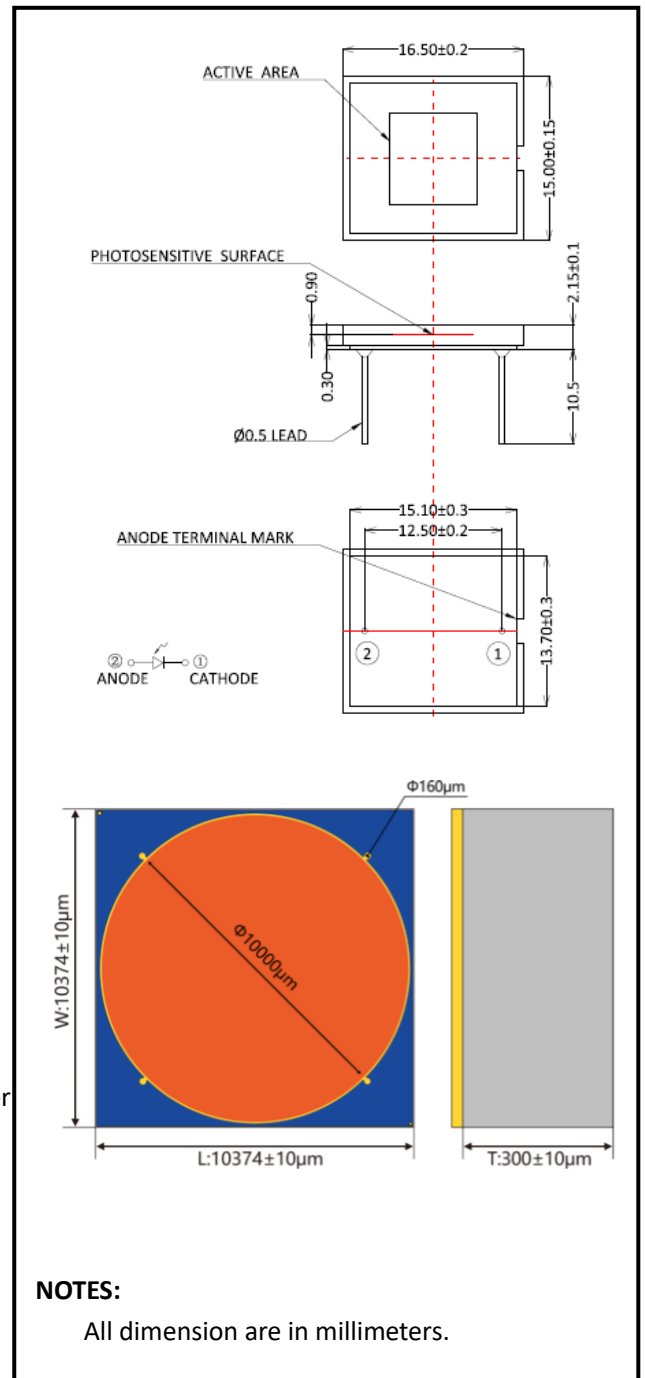
- * Low voltage operation
- * Isolated type are also available
- * Large Active Area Diameter

General Ratings

- * Type InGaAs Photodiode
- * High linearity
- * Low dark current

Applications

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



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

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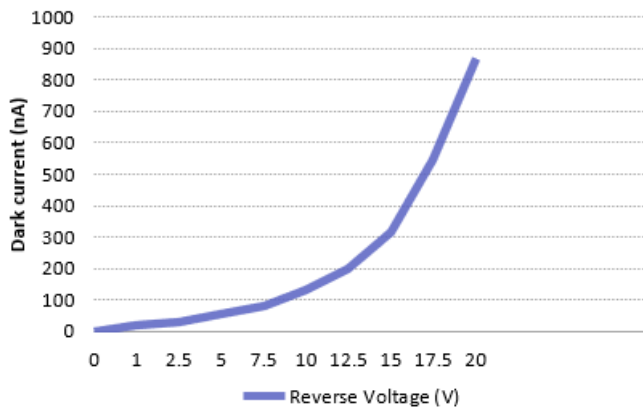


Absolute Maximum Ratings (Ta=25°C)

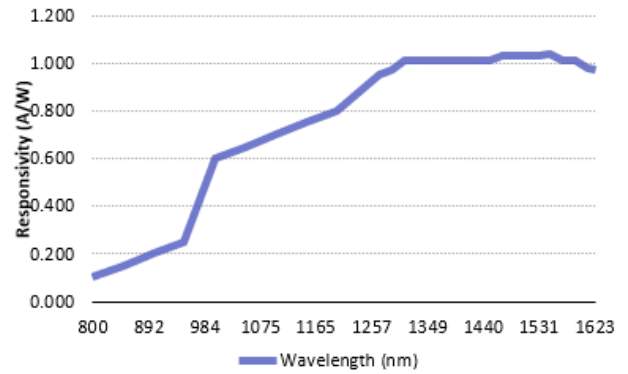
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	S	10374*10374				um
Active area	A	Φ10000				um
Forward current	I _F	10				mA
Reverse current	I _R	5				mA
Dark current	I _D	V _R =5V		0.3		nA
		V _R =5V		53		nA
Rise time	t _R	V _R =5V;λ=850nm;R _L =50Ω		8	20	us
Forward Voltage	V _F	I _F =1mA			0.5	V
Reverse breakdown voltage	V _{(BR)R}	I _R =10μA Ev=0lx	20			V
Junction Capacitance	C _J	V _R =0V f=1MHz		4.28		nF
		V _R =5V f=1MHz		2.80		nF
Photo sensitivity	S _R	1310nm	0.85	0.95		A/W
		1550nm	0.95	1.10		
Spectral Application Range	λ _{range}		850		1680	nm
Spectral Response-Peak	λ _p			1600		nm
Shunt resistance	R _{sh}	V _R =10mV	10			MΩ
Saturation power	L	V _R =0V;λ=1.55μm		1		mW
		V _R =5V;λ=1.55μm		6		
Angular Resp 50% Resp Pt	θ _{1/2}			±55		Degrees

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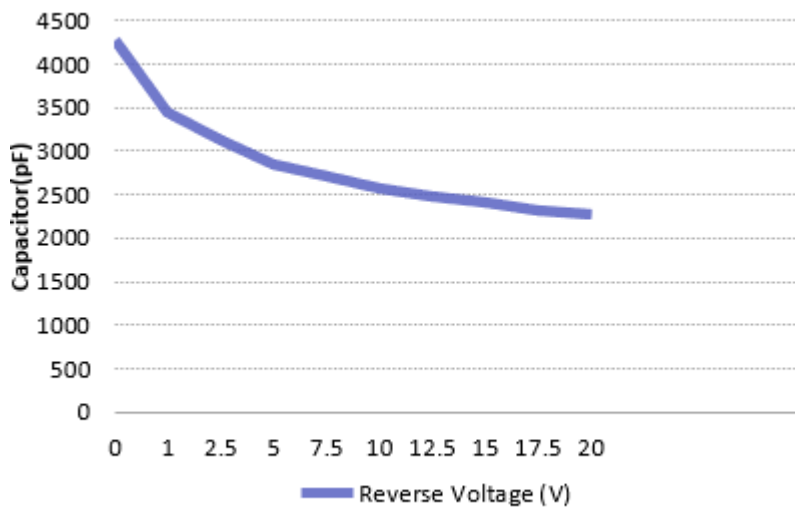
■ Dark current vs. reverse voltage



■ Spectral response



■ Relative Junction Capacitance VS. Voltage



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