Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

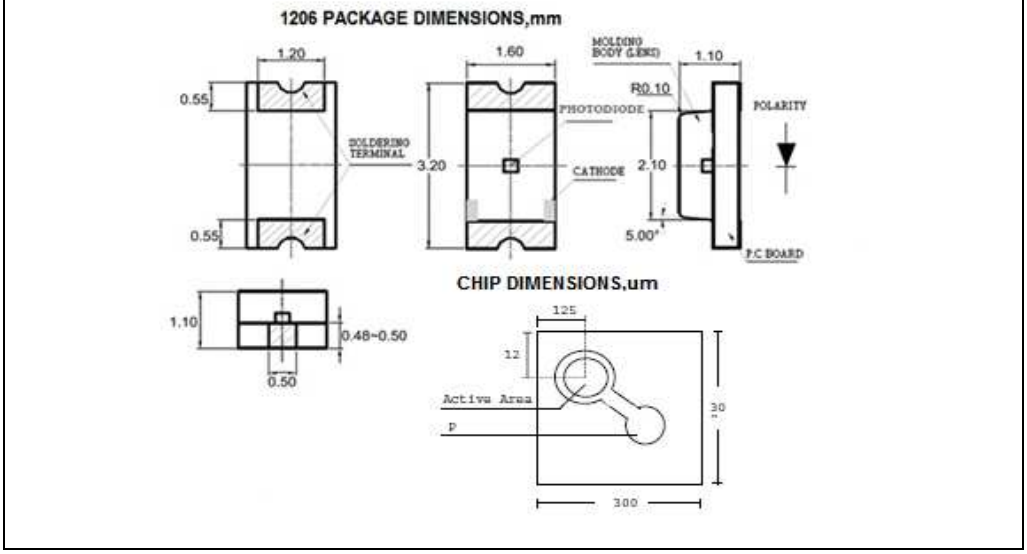
Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Surface-Mount InGaAs Photodetector

SD003-151-001

WWW.ADVANCEDPHOTONIX.COM **Precision – Control – Results**



DESCRIPTION

The SD003-151-001 is a high sensitivity, low noise, 0.075 mm diameter active area InGaAs photodiode (chip dimensions 0.3mm x 0.3mm) for detection at SWIR, NIR wavelengths for imaging and sensing applications. The photodetector is assembled in a 1206 package.

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FEATURES

- Low Noise
- Low Dark Current
- Low Capacitance
- High Sensitivity
- Detection in LWIR

RELIABILITY

Contact API for recommendations on specific test conditions and procedures.

APLICATIONS

- Industrial Sensing
- Security
- Communication
- Medical

ABSOLUTE MAXIMUM RATINGS

T_a = 23°C unless noted otherwise

SYMBOL	MIN	MAX	UNITS
Reverse Voltage	-	40	V
Operating Temperature	-40	+125	°C
Storage Temperature	-55	+100	°C
Soldering Temperature	-	+260	°C
Wavelength Range	450	1700	nm

REV 12-10-14

Advanced Photonix Inc. 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935

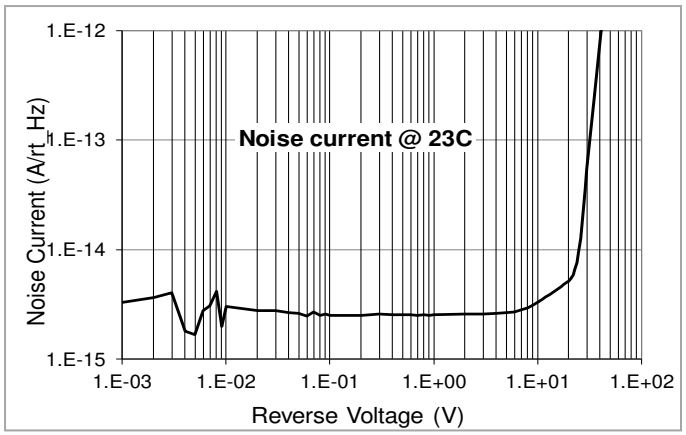
ABSOLUTE MAXIMUM RATINGS

T_a = 23°C unless noted otherwise

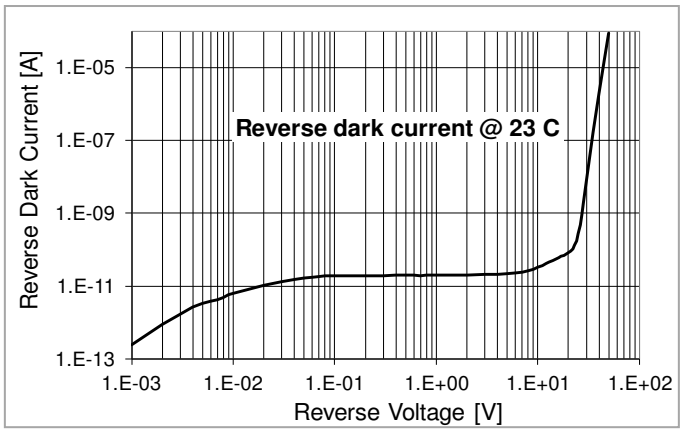
PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Breakdown Voltage	I_{bias} = 1 μA	-	50	-	V
Responsivity	λ= 1310 nm, Vr=5V	0.80	0.90	-	A/W
Shunt Resistance	V_{bias} = 10 mV	-	2.0	-	GΩ
Dark Current	V_{bias} = 1V	-	0.001	-	nA
Capacitance	V_{bias} = 5V; f = 1.0 MHz	-	10	-	pF
Rise Time (50Ω load)	V_{bias} = 5V; λ= 1310 nm	-	1.2	-	ns
Spectral Range		800	-	1700	nm
Noise Equivalent Power	Vr= 5V@ λ=1310	-	$4.0x10^{-15}$	-	$W/Hz^{1/2}$

TYPICAL PERFORMANCE

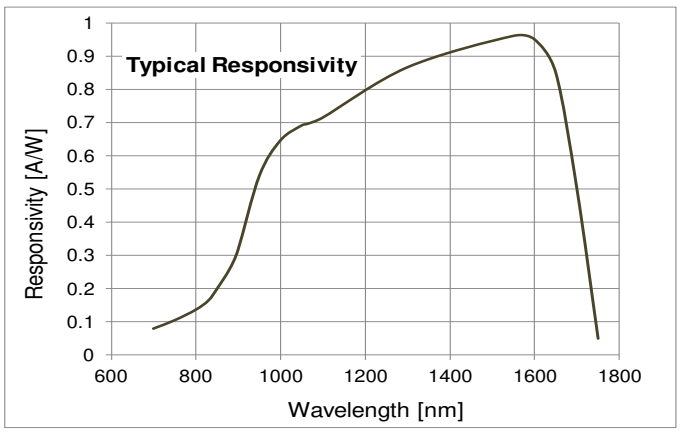
NOISE CURRENT vs. REVERSE BIAS



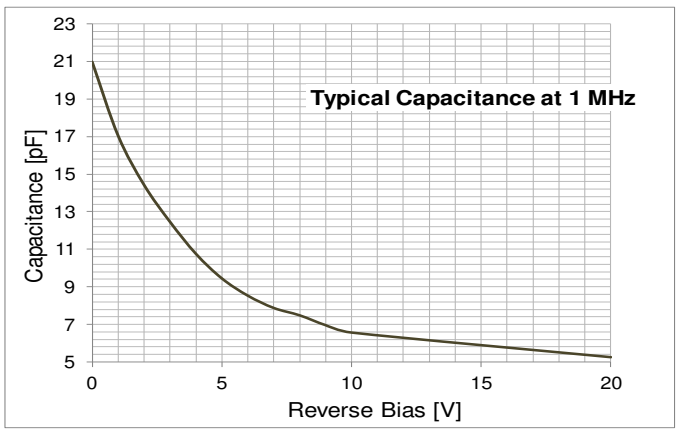
DARK CURRENT vs. REVERSE BIAS



SPECTRAL RESPONSE



CAPACITANCE vs REVERSE BIAS



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