# 800-2100nm 0.3mm InGaAs PIN Photodiode

# Model: LSIPD21-0.3

#### Features:

- Low noise, High reliability
- 800-2100nm wide wavelength range
- Active diameter 0.3mm
- Hermetic package TO46 Can or with receptacle or with fiber coupling

## **Applications:**

- Gas Analyzer
- Environment measurement
- Optical sensor, Temperature sensing
- Covert IR sensing, Spectrography
- Medical and Chemical analysis
- Optical power meter, Space light detect equipment

## Absolute maximum ratings:





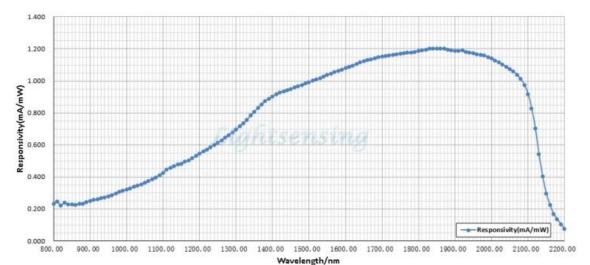


Aboolato maximum ratingo.				
parameter	symbol	value	unit	
Operating temperature	Тор	-40~+85	$^{\circ}\mathrm{C}$	
Storage temperature	Tstg	-50~+125	$^{\circ}\mathrm{C}$	
Forward current	l <sub>f</sub>	5	mA	
Reverse voltage	VR	3	V	
Soldering temperature(time)	<b>Ts</b> (10s)	260	$^{\circ}\mathrm{C}$	

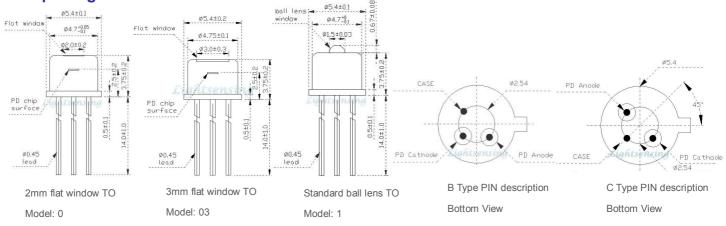
## Electrical and optical characteristics:(T=25°C)

parameter	symbol	unit	Value (typ.)
Active diameter	Φ	mm	0.3
Spectral range	λ	nm	800-2100
Responsivity	Re (V <sub>R</sub> =2V, $\lambda$ =850nm )	mA/mW	0.23
	Re (V <sub>R</sub> =2V,λ=1310nm )	mA/mW	0.7
	Re(V <sub>R</sub> =2V,λ=1850nm)	mA/mW	1.2
	Re(V <sub>R</sub> =2V,λ=2100nm)	mA/mW	0.9
Response time	Tr (R <sub>L</sub> =50Ω, V <sub>R</sub> =2V)	ns	3
Dark current	I <sub>D</sub> (V <sub>R</sub> =0V)	nA	2
	$I_D(V_R=2V)$	nA	20
Reverse Breakdown voltage	V <sub>BR</sub> (I <sub>R</sub> =10uA)	V	6
Junction capacitance	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =0V)	pF	90
	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =2V)	pF	18
Saturated Optical Power	Ps(VR =2V)	mW	4
Operating voltage	V <sub>R</sub>	V	0-2
Shunt impedance	Rsh (V <sub>R</sub> =10mV)	MΩ	5
package	Hermetic package TO46 Can or with receptacle or fiber coupling		

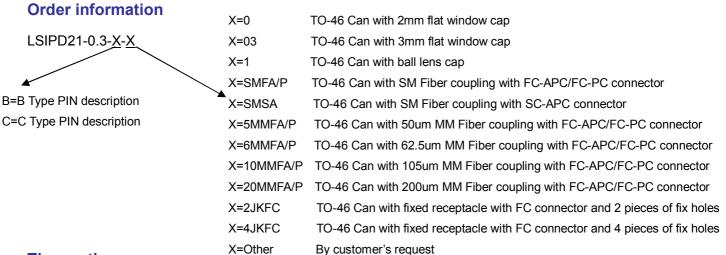
#### The typical Sensitivity curve



## TO package and Lead



Note: In order to get other dimensions, please contact us.



#### The cautions

1: The above product specifications are subject to change without notice.

2: The suitable ESD protecting measures are recommend in storage, transporting and using.

3: The fiber bending radius no less than 20mm for avoiding fiber damaged ,Be sure the fiber coupling facet is clean before connecting it to opto-circuit.