



## PDT-LF05A3-INx

### Dia. 3mm Active Area 800-1700nm InGaAs PIN Photodiode in TO-5 Package

#### Overview

The Lasermate PDT-LF05A3-INx is an 800nm-1700nm wavelength spectral range, InGaAs photodiode in TO-5 package designed with large active area of 3.0mm diameter.



#### Features

- High reliability
- Low dark current
- 800-1700nm spectral range
- Active diameter 3mm
- Hermetic TO5 can

#### Applications

- Optical sensor and optical power meter
- Industrial automatic control
- Science analysis and experiment
- Space light detect equipment
- Response spectrum testing

#### Product Overview

The following table lists the available part numbers, as well as the package type of each of the part numbers.

Part Number	Package
PDT-LF05A3-INA	TO-5 Can with Flat Window Dia. 8.1mm Au cap
PDT-LF05A3-INB	TO-5 Can with Flat Window Dia. 8.25mm Nickel cap



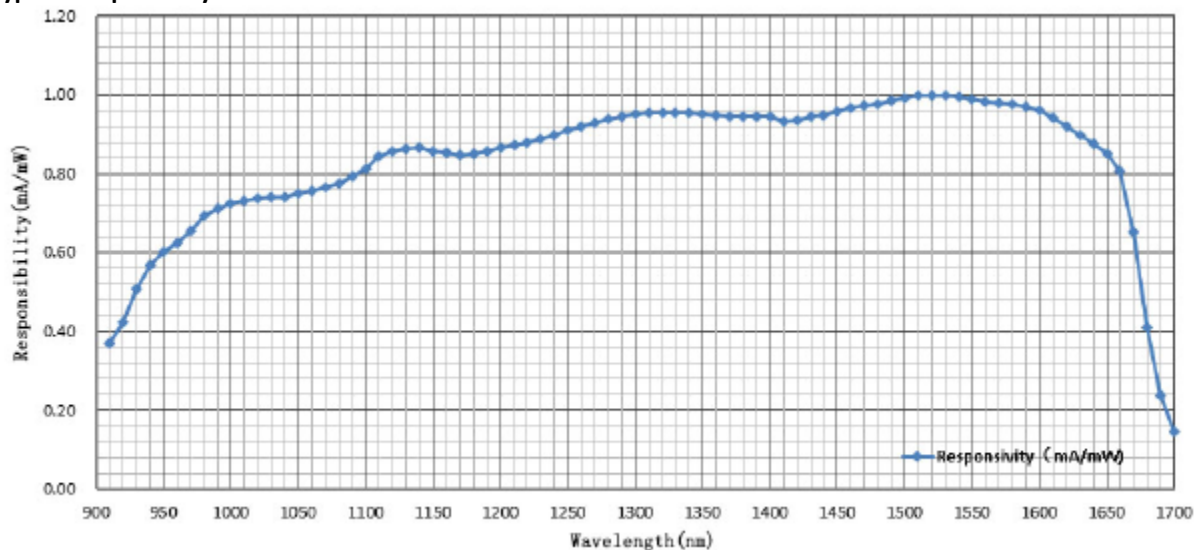
## Specifications

Electro-Optical Characteristics (T=25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active Diameter	$\Phi$		3		Mm	
Spectral Range	$\lambda$	800		1700	nm	
Responsivity	$R_e$		0.85 0.9		mA/mW	$V_R=0V, \lambda=1310nm$ $V_R=0V, \lambda=1550nm$
Response Time	$T_r$		120			ns
Dark Current	$I_d$		1.5 7		nA	$V_R=0V$ $V_R=5V$
Reverse Breakdown Voltage	$V_{BR}$		20			V
Junction Capacitance	$C_j$		2000 1000		pF	$f=1MHz, V_R=0V$ $f=1MHz, V_R=5V$
Saturated Optical Power	$P_{sat}$		12			mW
Operating Voltage	$V_R$	0		5	V	
Shunt Resistance	$R_{sh}$		6		$M\Omega$	

Absolute Maximum Ratings					
Parameters	Min.	Max.	Unit	Conditions	
Storage Temperature	-40	100	°C		
Operating Temperature	-40	85	°C		
Lead Solder Temperature		260	°C	10 seconds	
Forward Current		16	mA		
Reverse Voltage		20	V		

## Typical Characteristics

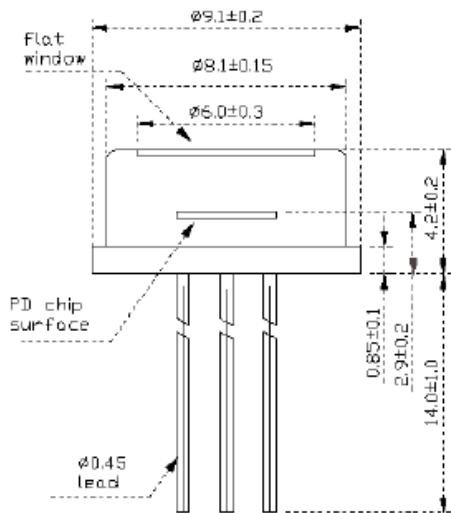
### Typical Responsivity Curve



## Outline Dimensions (unit: mm)

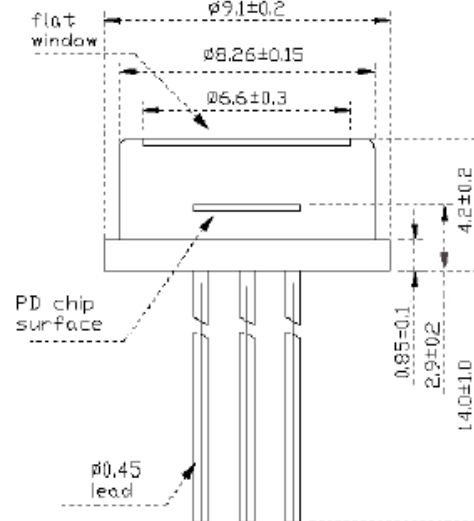
### PDT-LF05A3-INA

TO-5 Can with Flat Window Dia. 8.1mm Au cap

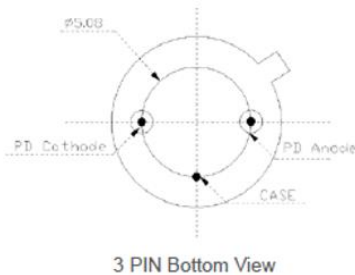


### PDT-LF05A3-INB

TO-5 Can with Flat Window Dia. 8.25mm Nickel cap



## Pin Configuration



## Additional Notes

1. Specifications are subject to change without notice.
2. The suitable ESD protective measures are needed in storage, transportation and handling.
3. The fiber bending radius no less than 20mm to avoid fiber damage. Be sure the fiber coupling facet is clean before connecting to opto-circuit.