

## InGaAs PIN PHOTODIODES

PD-1181

### 0.5 mm InGaAs PIN Photodiode with TO-46 Package

#### FEATURES

- ◇ High responsivity for dual windows at 1310 nm and 1550 nm
- ◇ Low dark current
- ◇ Hermetically sealed 3-pin TO-46 metal case
- ◇ Active diameter 0.5 mm

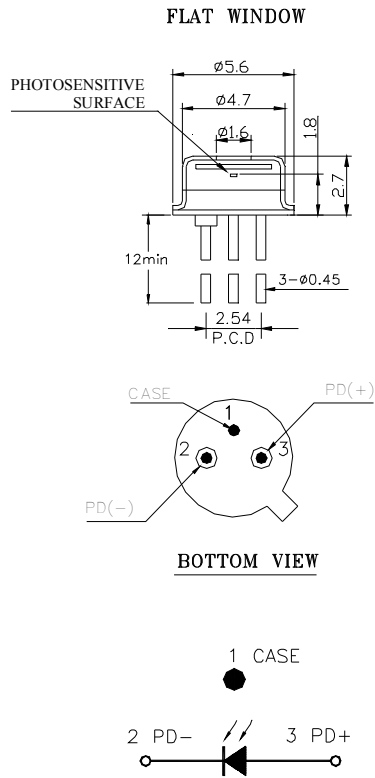
#### DESCRIPTION

PD-1181 InGaAs Photodiode is suited to receive the light at the wavelength range from 800 nm to 1650 nm. With high reliability, PD-1181 series are the best choice for power monitor application.

ELECTRICAL AND OPTICAL CHARACTERISTICS (T <sub>c</sub> =25°C)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Active Diameter			0.5		mm
	Detection Range		800		1650	nm
R	Responsivity	V <sub>R</sub> =5V, λ=1300nm	0.85		-	A/W
		V <sub>R</sub> =5V, λ=1550nm	0.9	-		
I <sub>dark</sub>	Dark Current	V <sub>R</sub> =5V		1	3	nA
C	Capacitance	V <sub>R</sub> =5V		30	50	pF
R <sub>shunt</sub>	Shunt Resistance		10			MΩ
BW	Bandwidth	V <sub>R</sub> =5V	50			MHz

ABSOLUTE MAXIMUM RATINGS (T <sub>c</sub> =25 °C)			
Symbol	Parameter	Ratings	Unit
P <sub>o</sub>	Input Optical Power	10	mW
V <sub>RD</sub>	Reverse Voltage	15	V
I <sub>FD</sub>	Forward Current	10	mA
T <sub>opr</sub>	Operating Temperature	-40~+85	°C
T <sub>stg</sub>	Storage Temperature	-40~+85	°C

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



- Note:** 1. Specifications subject to change without notice.  
 2. Other PIN assignment is available upon request.

## ORDER INFORMATION

Part No.: P D - 1 1 8 1

## Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2004/4/1
1.1	Add the indication of photosensitive surface	2009/4/9