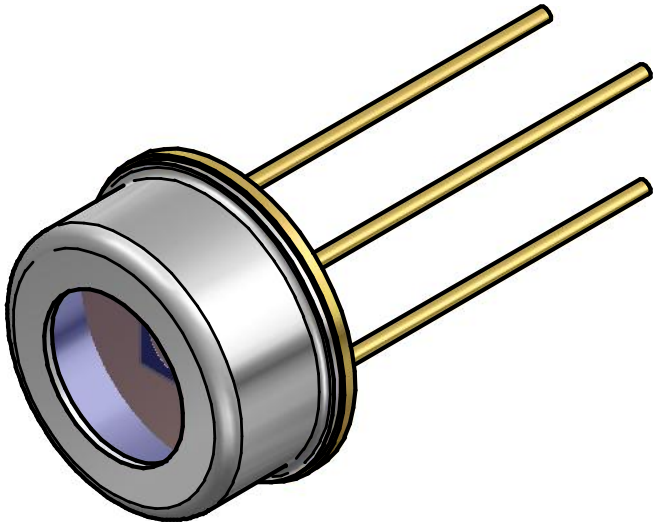
Wooriro Photodiode Series

InGaAs PIN- PD TO CAN with 1mm active area

SPECIFICATIONS[Integration]



Contents

General Description

InGaAs PIN- PD TO CAN series are designed to have a good linearity of responsivity to high power (+15dBm). In addition, by designing their shot noise and Jonson noise current to be lower, they enable users to reduce minimum detectable signal. Their low dark current obtained in PD with large active area also guarantees high reliability. Thus, they can be used for reliable optical power requiring high resolution for a wide input optical power range.

Absolute Maximum Ratings (T_C = 25℃)

Parameter	Symbol	Rating	Unit
Input Optical Power	Po	10	mW
Reverse Voltage	V_{PD}	10	V
Forward Current	I_F	10	mA
Operating Temperature	T_C	-40 to +85	℃
Storage Temperature	T_{STG}	-40 to +85	℃

Table 1. Absolute Maximum Ratings

Electro-Optical Characteristics

Inspection sheet shall be an appended to products when they are delivered.

It shall contain the following items.

Optical Characteristics (T_C= 25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Optical Wavelength Range	λ	-	1000	-	1700	nm
Linear Range(<±0.2dB)		V_R = 3V, λ = 1550nm	-50		10	dBm

Table 2. Optical Characteristics

Electrical Characteristics (T_C = 25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Active diameter	D	-		1.0		mm
Dark current	I_D	V_R = 3V		1	10	nA
Responsivity	R	λ = 1310nm	0.8	0.9		A/W
		λ = 1550nm	0.9	1.0		
Capacitance	C_{PD}	V_R = 1V		80		pF
		V_R = 3V		50		pF
Bandwidth		50Ω , V_R = 3V		60		MHz
Rising Time	t_r	R_L=50Ω		20		ns
Shunt resistance	R_{SH}	ΔV/ΔI (@0~10mV)		60		MΩ

Table 3. Electrical Characteristics

Structure

Dimension Parameter

(unit : mm)

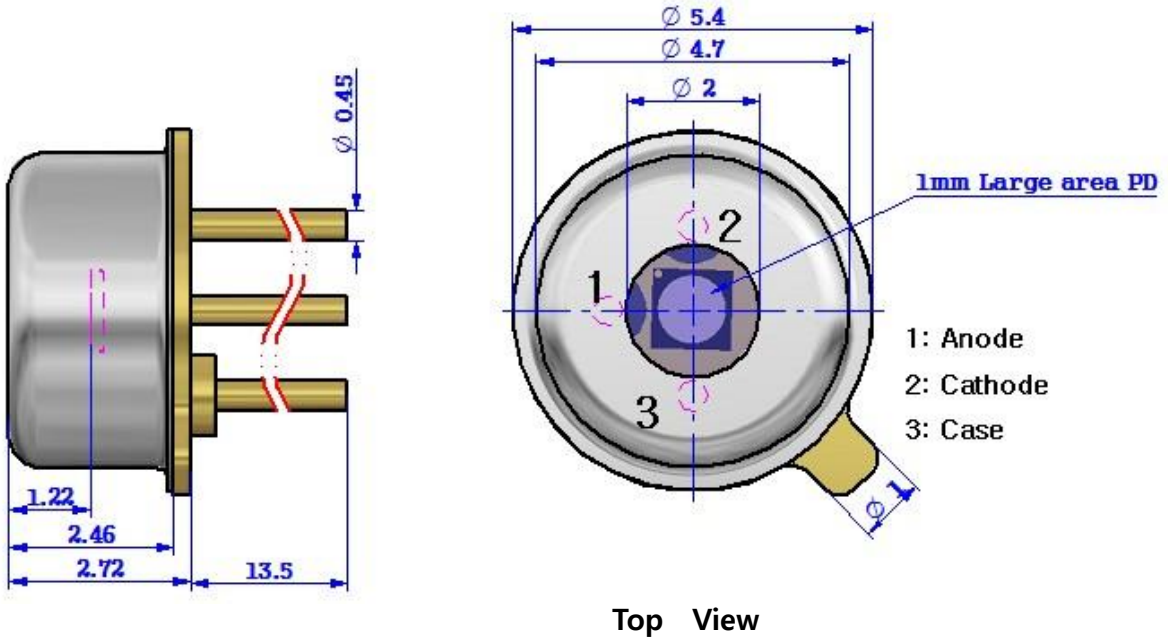


Figure 1. Dimensions Diagram

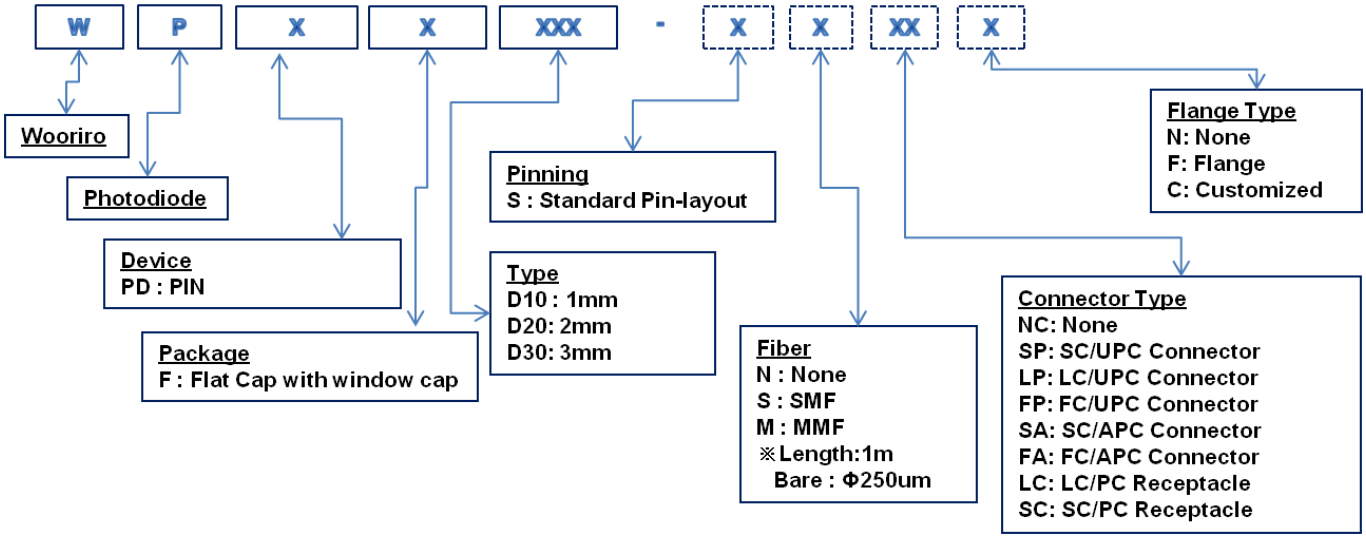
Other Requirements

PRECAUTIONS FOR USE

1)This device is susceptible to damage as a result of ESD(electrostatic discharge). Use of ground straps, anti static mats, and other standard ESD protective equipment is recommended when handling or testing an InGaAs PIN/APD or any other junction photodiode.

2) Any kinds of high input optical power can cause damage on APD chip.

Ordering Information



ex) WPPDFD10SNNCN
Diameter 1mm - Large Area PD TO Can module

Packaging

Products shall be packed into a suitable case in order to prevent damage during transportation and storage as long as A`s company with not demand other requirement.

Others

When the problem is caused concerning this specification sheet, both companies will confer in sincerity for the solution.