PD500

500μm InGaAs Photodiode

FEATURES

- **Planar Structure**
- **Dielectric Passivation**
- **High Shunt Resistance**
- **High Responsivity**



PD500-0xx
Ceramic Sub-Mount



PD500-1xx
TO can Package

APPLICATIONS

- **High Sensitivity Instrumentation**
- **Laser Back Facet Monitoring**

PRODUCT DESCRIPTION

The PD500 is an InGaAs photodiode with a photosensitive region 500μm in diameter. It is intended for use in high sensitivity instrumentation, laser back-facet monitoring and low bit rate communication systems.

Planar semiconductor design and dielectric passivation provide superior noise performance. The device can be assembled on a ceramic sub-mount or in an hermetic TO46 can. Custom packages are an option.

ELECTRICAL CHARACTERISTICS

Table 1: Electrical Specifications

PARAMETER	MIN	TYP	MAX	UNIT
Dark Current (I_D) (1)	-	25	-	nA
Capacitance (2)	-	20	-	pF
Responsivity at 1310nm	0.80	0.90	-	A/W
Responsivity at 1550nm	0.85	0.95	-	A/W
Rise/Fall time	-	3	-	ns
Shunt Resistance (Class A) (2)	50	-	-	MΩ

(1) 5V reverse bias
(2) 0V reverse bias

ELECTRICAL CHARACTERISTICS (cont)

Table 2: Absolute Maximum Ratings

PARAMETER	MIN	MAX	UNIT
Forward Current	-	50	mA
Reverse Current	-	5	mA
Reverse Voltage	-	15	V
Optical input power	-	5	mW
Operating Case Temperature	-40	+85	ºC
Storage Temperature	-40	+85	ºC
Soldering temperature (10 seconds)	-	+250	ºC

Stresses in excess of the absolute ratings may cause permanent damage. Functional operation is not implied under these conditions. Exposure to absolute ratings for extended periods of time may adversely affect reliability.

ORDERING INFORMATION

Part Number	Options
PD500-0xx	Custom defined size and electrical layout
PD500-1xx	Package: TO46 Number of pins: 2, 3 Cap: Window, AR / Non-AR coated. Cap plating: Gold or nickel

Please contact Anadigics for the specific part number and pinout that suits your needs

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