

Silicon Diode with Pigtail



Article Overview

A silicon diode with a pigtail is a Si PIN photodiode integrated with a fiber optic cable for efficient light detection and signal conversion.

Overview

A silicon photodiode with a pigtail combines a silicon PIN photodiode with a pre-attached optical fiber, allowing direct coupling of light into the detector. This configuration is widely used in optical communications, high-speed photometry, and monitoring applications because it converts optical power into an electrical current with high efficiency and low noise .

Key Features

- **Spectral Range:** Typically sensitive from 200 nm to 1100 nm, covering ultraviolet, visible, and near-infrared light . Specific models may target narrower ranges, e.g., 320–1000 nm for multimode fibers or 610–970 nm for single-mode fibers .
- **High Responsivity:** Optimized for low-light detection with high sensitivity and low dark current .
- **Low Capacitance:** Ensures fast response times, suitable for pulsed or continuous-wave light sources .
- **Fiber Coupling:** Available with single-mode or multimode fibers, actively aligned for maximum coupling efficiency and minimal back reflection .
- **Package Options:** Offered in TO metal packages, ceramic, or custom receptacle packages, with pigtail fibers terminated in standard connectors like FC/PC or angle-polished connectors .

Article Content

Silicon Photodiode Detectors

Marktech Optoelectronics' advanced silicon photodiode detectors are designed for Si-/Ge-/InGaAs

PD-LD, Inc. offers a broad range of photodiodes and APDs with fiber connection or optical receptacle. Detectors are available with an

Silicon Photodetectors

Marktech Silicon PN photodiodes are available in various package types such as hermetically sealed metal cans (TO-5, TO-18, and

SMD Diode Code: Lookup, Marking & Identification

Decode unknown SMD diode markings instantly. Use comprehensive SMD diode code charts for Zener, Schottky, and switching

Driving PIN Diodes: The Op-Amp Alternative | Analog Devices

Thus, the output levels for the silicon PIN-diode driver are set to ± 3 V. Resistors R16 and R17 limit the steady-state current.

Pigtailed Laser Diode Mount

Typical laser diode mounts rely on contact between the diode and the mount's cold plate for heat transfer.

Pigtail Photodiode Assemblies

High responsivity and low capacitance make these devices ideal for very high-bit rate receivers used in

p-n diode

A p-n diode is a type of semiconductor diode based upon the p-n junction. The diode conducts current in

Diode: Definition, Symbol, and Types of Diodes

Key learnings: Diode Definition: A diode is defined as a component that restricts the direction of flow of electric

Si PD-8000-TO8

These devices cover the spectral range from 400nm to 1100nm wavelengths and feature high responsivity,

PDIN-Series InGaAs PIN Photodiode Pigtailed or Receptacled

All devices are available in fiber pigtailed co-axial packages or in connector style receptacle packages. Pigtailling. Devices can be

Pigtailed Laser Diodes, Single Mode Fiber

Our precise pigtail alignment process for laser diodes includes multiple test and inspection points that ensure that the coupling

Pigtailed Laser Diodes, MM Fiber

Our high-quality MM pigtail alignment process for laser diodes includes multiple test and inspection points

Photodiodes

Thorlabs stocks a wide selection of photodiodes (PD) with various active area sizes and packages.

Pigtail Photo Silicon Diode High Response, Flat

They can be applied to CATV, GSM, RF, FTTH, OTDR, instruments and meters, sensor fiber-pigtailed-laser-diodes

These laser diodes have a one-meter single-mode fiber pigtail. All fiber pigtails are terminated with FC/PC fiber optic connectors

Pigtailed Photodiodes

The FDSP Series Pigtailed Photodiodes are offered with a single or multimode fiber, actively aligned for

What Is Photodiode? Working, V-I Characteristics, Applications

What is a Photodiode? Understand Working of a Photodiode, different modes of operation, V-I Characteristics, use in

Pigtailed Laser Diode Modules

Pigtailed Laser Diode Modules feature an integrated driver for plug and play operations, making them ideal

Pulsed Laser Diodes with Fiber Pigtail

Pulsed Laser Diodes with Fiber Pigtail Fiber pigtailed pulsed laser diodes. 905 nm and 1550 nm versions available. Quick selection!

Pigtailed Butterfly Laser Diodes

Thorlabs' pigtailed butterfly laser diodes are housed in type 1, 14-pin butterfly packages to provide compatibility with any standard 14

Discrete Silicon Carbide (SiC) Schottky Diodes | Wolfspeed

Discrete Silicon Carbide Schottky Diodes Further reduce conduction losses with ultra-low voltage drop Schottky diodes in power

Silicon PIN Photodiode | Advanced Photonix

These Silicon PIN photodiodes are highly sensitive to UV and super blue light, designed with optimized

Photodiodes – photodetectors, p-i-n, InGaAs, GaAs, silicon,

Photodiodes are semiconductor devices with a p-n or p-i-n structure for light detection. They can be sensitive and linear detectors

Novel low-cost high-speed optic-electric laser diode pigtail module ...

However, high-speed laser diode pigtails used in module components and process assembly account for extremely

What is a Silicon Diode? How Does it Work?

Silicon is one of the most widely used semiconductor materials for constructing diodes. How Silicon Diodes Work The

Single Mode Pigtail Fiber Coupled Laser Diodes

Single Mode Pigtail Fiber Coupled Laser Diodes Thermally stable laser diode module with single mode

Silicon PIN Photodiode | Advanced Photonix

Silicon Photodiodes Our silicon photodiodes are designed to detect light across a wide range of wavelengths - from ultraviolet to near

A single diode with integrated photosensing, memory and ...

Here we show that a band-structure engineering approach can be used to create a p-n diode with integrated

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://e-motional.eu>

Email: info@e-motional.eu

Phone: +49-30-657-8924

Address: Friedrichstraße 101, 10117 Berlin, Germany

This document is for informational purposes only. Specifications subject to change without notice.

