BROADCOM®

Product Brief

SPD2025

28-Gb/s GaAs PIN Photodiode



Key Features

- Large aperture
- 24 GHz bandwidth
- Low capacitance
- Die Level Hermeticity (DLH) Technology
- PAM-4 ready
- SG 2-pad configuration

Applications

- 25-Gb/s and 28-Gb/s links
- 25-Gigabit Ethernet (25GbE)
- 32G Fibre Channel
- Multimode datacom
- Active optical cables
- Fiber-optic transceivers, receivers, and transponders

DLH™ TECHNOLOGY

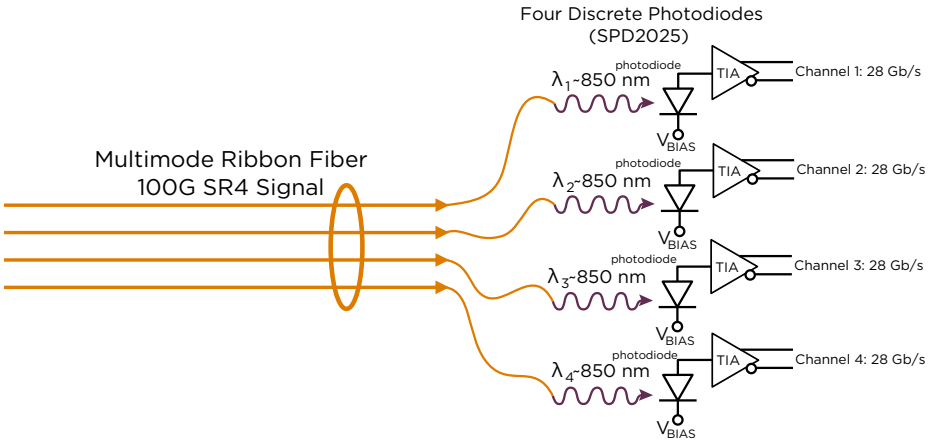
Description

The Broadcom SPD2025 is a mesa-structured, GaAs-based PIN photodiode offering high responsivity, low dark current, and low capacitance for high-bandwidth, high-performance optical receiver designs. The photodiode's low parasitics make it ideal for high-speed, multimode 28-Gb/s applications in combination with today's high-performance 28-Gb/s single-channel transimpedance amplifiers (TIA). The SPD2025 is also available in a 1×4 array (SPD2025-4) and a 1×12 array (SPD2025-12).

The SPD2025 is designed with extra bandwidth when compared with typical photodiodes used in 28-Gb/s NRZ signaling. This extra bandwidth enables the SPD2025 to work with 25-Gbaud PAM-4-type signals. The extra bandwidth also helps to ensure the linear fidelity of the PAM-4 signaling is preserved and cleanly launched into a linear TIA channel.

Broadcom DLH Technology™ is applied to the semiconductor device coatings (passivation, etc.) on the photodiodes to enable the die themselves to act as the hermetic seal against GR-468-type environments.

100G SR4 into Four Discrete Photodiodes



Ordering Information	
GaAs PIN Photodiode: Blue tape, 6" hoop frames, max. 16,000 die/frame	SPD2025
GaAs PIN Photodiode: 2" Gel-Pak, vacuum release, max. 100 die/pack	SPD2025-GP

BROADCOM®
connecting everything®

Visit the Broadcom Fiber Optics website at: www.broadcom.com/products/fiber-optic-modules-components/

Broadcom, the pulse logo, Connecting everything, Avago Technologies, and DLH Technology are among the trademarks of Broadcom. Copyright © 2017 Broadcom. All Rights Reserved. The term "Broadcom" refers to Broadcom Limited and/or its subsidiaries. For more information, please visit **www.broadcom.com**.
SPD2025-PB100 03.13.17