

**Product Brief** 



## **Key Features**

- Large aperture (38 μm)
- Low capacitance
- Die Level Hermeticity (DLH) Technology
- SG 2-pad configuration
- 19 GHz bandwidth

### Applications

- 25-Gb/s per channel links
- 25-Gigabit Ethernet (25GbE)
- NRZ 4×25-Gb/s (100GbE) SR4 links
- Multimode datacom
- Active optical cables
- Fiber-optic transceivers, receivers, and transponders



# SPD2020-4X

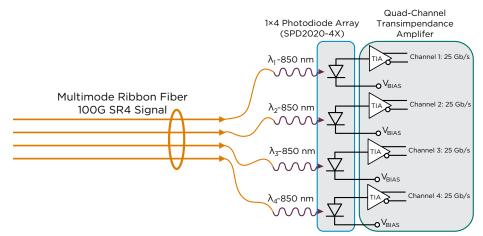
## 25-Gb/s GaAs, 1×4 Array PIN Photodiode with 250- $\mu$ m Channel Spacing

## Description

The Broadcom SPD2020-4X is a mesa-structured, 1×4 array, GaAsbased PIN photodiode offering high responsivity, low dark current, and low capacitance for high-bandwidth, high-performance optical receiver designs. The photodiodes' low parasitics make them ideal for highspeed, multimode 4×25-Gb/s and 100GbE data center links and active optical cables. The SPD2020-4X is also available in singlets (SPD2020). The SPD2020-4X has slightly larger photodiode apertures (38  $\mu$ m) than the similar SPD2025-4X (32  $\mu$ m) to allow for easier optical alignment tolerances.

Broadcom DLH Technology<sup>™</sup> 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 1×4 Array: Blue tape, 6" hoop frames, max. 1600 die/frame	SPD2020-4X
GaAs PIN Photodiode 1×4 Array: 2" Gel-Pak, vacuum release, max. 100 die/pack	SPD2020-4X-GP



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