# High Performance InGaAs p-i-n Photodiode

**'ST' Active Device Mount**

## 13PD100-ST

The 13PD100-ST, an InGaAs photodiode with a 100µm-diameter photosensitive region packaged in a TO-46 header and aligned in an AT&T ST active device mount, is the largest standard device enabling a 1 GHz Frequency cutoff. Planar semiconductor design and dielectric passivation provide superior low noise performance. Reliability is assured by hermetic sealing and a 100% purge burn-in ( 200°C, 15 hours, $V_r$ = 20V ). The ST receptacle is suitable for bulkhead and PC board mounting.

## Features

Planar Structure
Dielectric Passivation
100% Purge Burn-In
High Responsivity

## Device Characteristics:

| Parameters | Test Conditions | | Min | Typ | Max | Units |
|---|---|---|---|---|---|---|
| Operating Voltage | - | | - | - | -20 | Volts |
| Dark Current | -5V | - | 0.5 | 2 | | nA |
| Capacitance | -5V | - | 1.15 | 1.9 | | pF |
| Responsivity | 1300nm | | 0.65 | 0.8 | - | A/W |
| Rise/Fall | - | | - | - | 0.5 | ns |
| Frequency Response | (-3dB) | | - | 1.0 | - | GHz |

## Absolute Maximum Ratings

| | |
|---|---|
| Reverse Voltage | 30 Volts |
| Forward Current | 5 mA |
| Reverse Current | 500 µA |
| Operating Temperature | -40°C to + 85°C |
| Storage Temperature | -40°C to + 85°C |
| Soldering Temperature | 250°C |

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