ANADIGICS

# InGaAs p-i-n Photodiode

## 35PD500-TO

The 35PD500-TO, an InGaAs photodiode with a 500µm photosensitive region packaged in a TO-46 header, is a versatile device applicable to high sensitivity instrumentation, laser back-facet monitoring, and low-bit-rate telecomm and datacomm transmission. Planar semiconductor design and dielectric passivation provide for superior noise performance. Reliability is assured by hermetic sealing and a 100% purge burn-in (200°C, 15 hours, $V_r = 15V$). Chips can also be attached and wire bonded to customer-supplied or other specified packages.

## Features

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

### Device Characteristics

| Parameters | Test Conditions | Min | Typ | Max | Units |
|---|---|---|---|---|---|
| Operating Voltage | - | - | - | -10 | Volts |
| Dark Current | -5V | - | - | 25 | nA |
| Capacitance | -5V | - | 20 | - | pF |
| Responsivity | 1300nm | 0.80 | 0.9 | - | A/W |
|  | 1500nm | - | 1.0 | - | A/W |
| Rise/Fall | - | - | - | 3 | ns |

### Absolute Maximum Ratings

| | |
|---|---|
| Reverse Voltage | 15 Volts |
| Forward Current | 50 mA |
| Reverse Current | 5 mA |
| Operating Temperature | -40°C to + 85°C |
| Storage Temperature | -40°C to + 85°C |
| Soldering Temperature | 250°C |

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