

Large Area InGaAs p-i-n Photodiode

35PD1M-TO

The 35PD1M-TO, an InGaAs photodiode with a 1mm-diameter photosensitive region and packaged in a TO-46 header, is designed for applications in high sensitivity instrumentation and sensing. Devices are hermetically sealed in a TO-46 header. Low dark current and high dynamic impedance are featured. High reliability is achieved through planar semiconductor design and dielectric-passivation. Chips can also be attached and wire bonded to customer-supplied or other specified packages.

Features

Planar Structure
Dielectric Passivation
High Dynamic Impedance
High Responsivity

| Device Characteristics: | | | | | | | |
|--------------------------|---------|---------------|------------------------------------|----------|------|-------|--|
| Parameters | Te | st Conditions | Min | Тур | Max | Units | |
| Dark Current | Class A | -1.0V | - | 2 | - | nA | |
| | Class B | | | 100 | | nA | |
| | Class C | | | 1 | | μΑ | |
| Capacitance | | 0V | - | 150 | - pF | | |
| Responsivity | | 1300nm | 0.9 | - | A/W | | |
| | | 1550nm | 1.0 | - | A/W | | |
| Rise/Fall | | | | 15 | | ns | |
| Dynamic Impedance 0V | | | | | | | |
| | Class A | | 50 | - | - | M ohm | |
| | Class B | | 1.0 | - | - | M ohm | |
| | Class C | | 0.15 | - | - | M ohm | |
| Absolute Maximum Ratings | | | | | | | |
| Reverse Voltage | | | | 15 Volts | | | |
| Forward Current | | | 100 mA | | | | |
| Reverse Current | | | 20 mA | | | | |
| Operating Temperature | | | -40° C to $+85^{\circ}$ C | | | | |
| Storage Temperature | | | -40° C to $+85^{\circ}$ C | | | | |
| Soldering Temperature | | | 250°C | | | | |