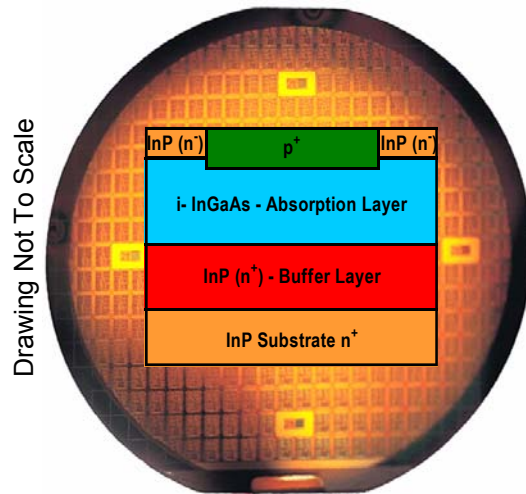


2.5 Gb/s & Monitor InGaAs P-I-N Photodetector Die

General Description & Features

- Spectrolab offers InGaAs P-I-N photodetector device dies for the Telecommunication markets.
- Active area sizes: 75 μm and 300 μm . Custom designs available.
- Planar structures.
- AR coating and SiN passivated structures.
- Typical device die characteristics: low dark current, low capacitance and high quantum efficiency.
- Wafer capability: 2", 3" and 4" on InP substrates.
- High volume and low cost production.
- Custom development services available for unique applications.

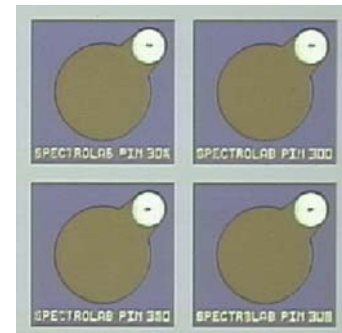


InGaAs P-I-N Photodetector

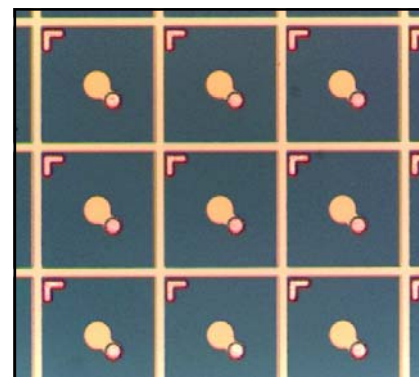
InGaAs P-I-N Photodetectors:

Optical and Electrical Characteristics @ 25°C

Active Area (Diameter in μm)	75	300
Contact Pad (μm diameter)	40	100
Die Size (mils)	14 x 14	20 x 20
Dark Current (nA @ -5 V)	<0.1 (Typ.) 0.5 (Max.)	<0.1 (Typ.) 1.0 (Max.)
Responsivity (A/W @ 1550 nm)	1.0 (Typ.) 0.9 (Min.)	1.0 (Typ.) 0.9 (Min.)
Capacitance (pF @ -5 V)	0.4 (Typ.) 0.5 (Max.)	4.0 (Typ.) 6.0 (Max.)
Breakdown Voltage (V @ 10 μA)	>20	>20
Frequency Response (GHz @ $R_L = 50 \Omega$)	>2.0	N/A



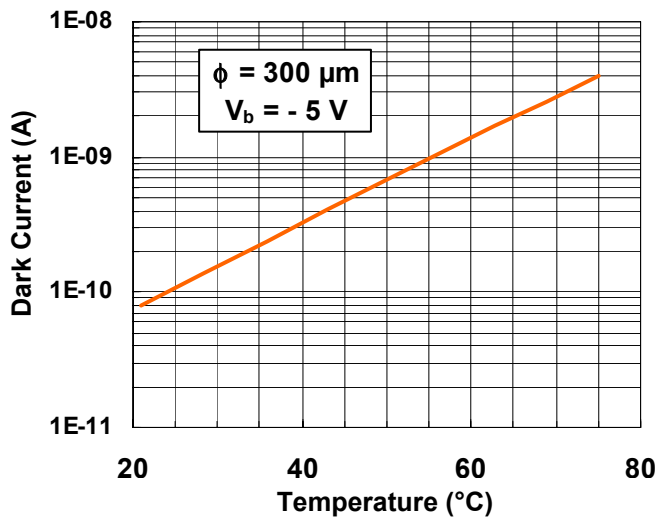
300 μm Device Dies



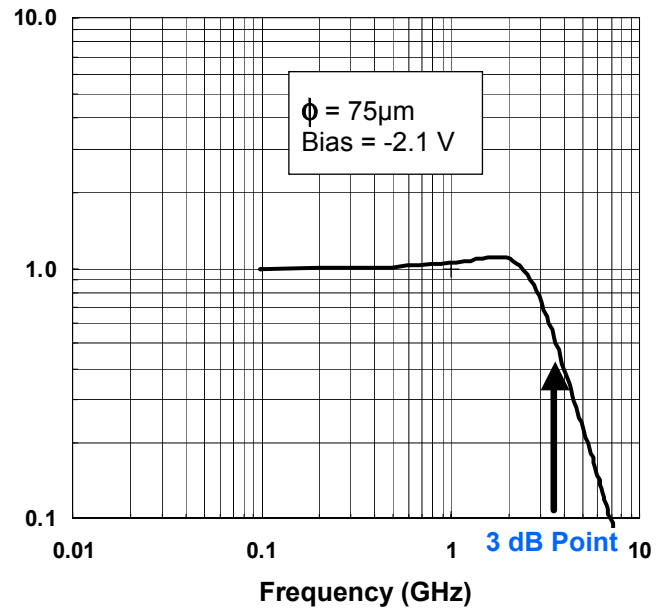
75 μm Device Dies

ISO9001:2000
REGISTERED

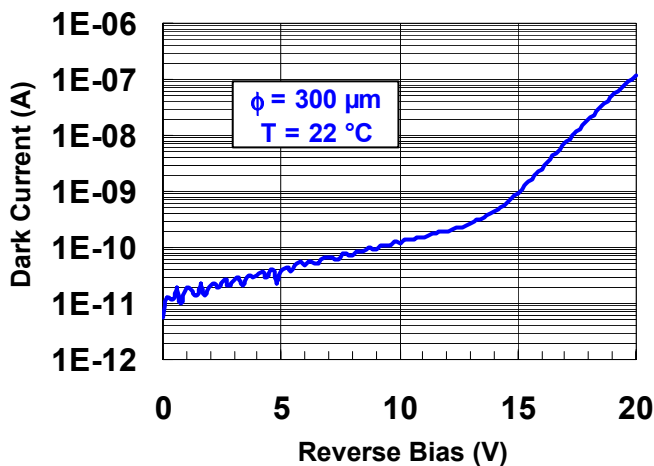
InGaAs P-I-N Dark Current vs. Temp. Data



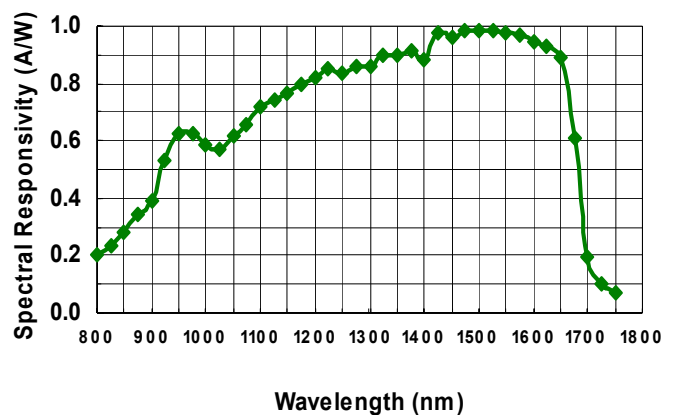
Frequency Response



Device Dark Currents



InGaAs P-I-N Typical Spectral Responsivity



ISO9001:2000
REGISTERED

SPECTROLAB

A BOEING COMPANY

The information contained on this sheet is for reference only. Actual specifications for delivered products may vary. 10/18/02