

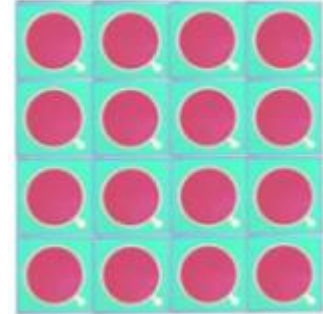


1260-1620nm InGaAs PIN Photodiode Chip, Dia. 1.0mm Active Area

Part No. PDC-13A1000

Features

- 1310nm/1550nm InGaAs PIN photodiode chip
- Dia. 1.0mm Active window
- Optical power monitor PD
- Low dark current and low capacitance



Specifications

| Absolute Maximum Ratings | | | | |
|--------------------------|------|------|------|------------|
| Parameters | Min. | Max. | Unit | Conditions |
| Storage temperature | -40 | 100 | °C | |
| Operating temperature | -40 | 85 | °C | |
| Forward current | | 10 | mA | |
| Reverse current | | 2 | mA | |
| Reverse voltage | | 20 | V | |

| Electro-Optical Characteristics | | | | | | |
|---------------------------------|----------|------|------|------|------|--|
| Parameters | Symbol | Min. | Typ. | Max. | Unit | Conditions |
| Responsivity | R | 0.8 | 0.95 | | A/W | $V_R = 5V, \lambda = 1310nm@25^{\circ}C$ |
| Dark current | I_D | | 2 | 20 | nA | $V_R = 5V@25^{\circ}C$ |
| Breakdown voltage | V_{BD} | 20 | 35 | | V | $I_R = 10\mu A$ |
| Capacitance | C | | 100 | 200 | pF | $V_R = 0V, f = 1MHz$ |



Typical Characteristics

Fig. 1 Typical Dark Current vs. Forward Current

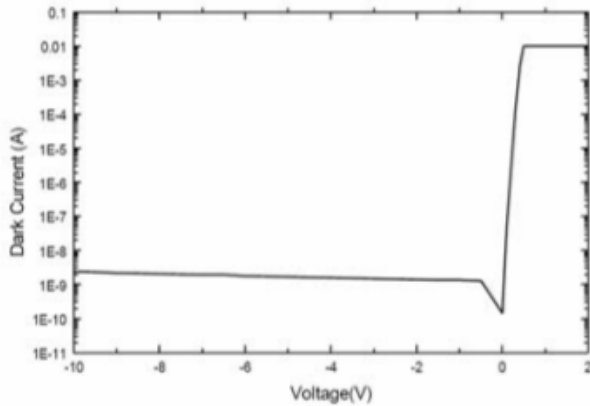


Fig. 2 Typical Photo-Current

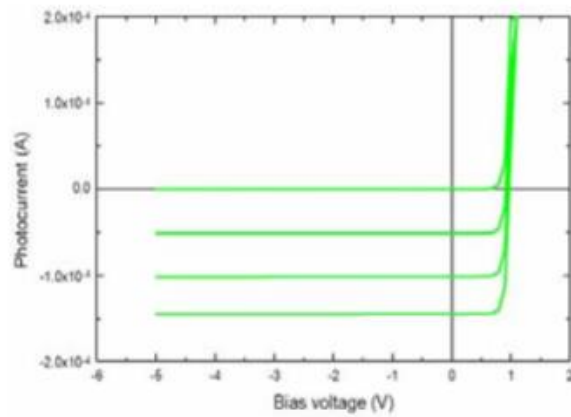


Fig. 3 Typical Breakdown Curve

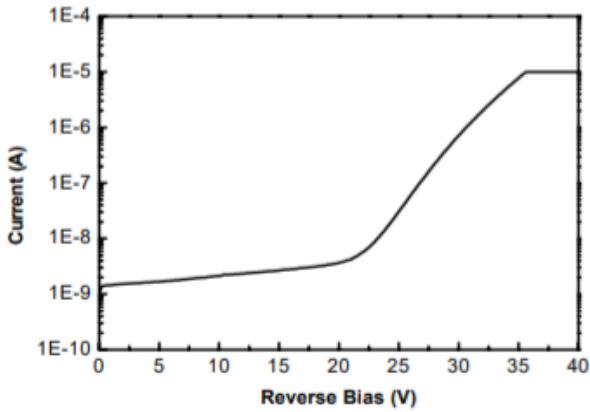
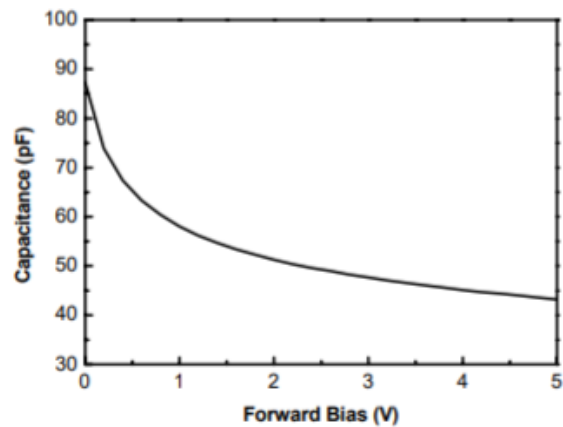
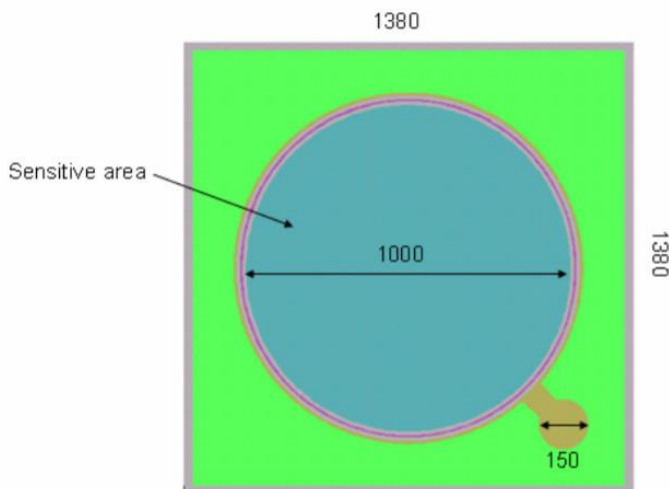


Fig. 4 Typical C-V Curve



Outline Diagram



- Chip size: 1380 μ m x 1380 μ m typical
- Chip thickness: 200 μ m \pm 30 μ m
- Sensitive area: Typical 1000 μ m in diameter

Note: Specifications are subject to change without notice.