

JMSLPD-1000-TO V2.00

1mm InGaAs PIN Photodiode TOcan

FEATURES:

- High Responsivity at 0.9um-1.7um
- Highly Reliable Planar Device
- Low Leakage Current
- High Shunt Resistance
- Wide Dynamic Range
- Responsivity (s) 0.6um-1.7um

APPLICATIONS:

- Power Monitoring
- Spectral Analysis
- Covert IR Sensing
- Light Detection and Ranging
- Remote Temperature Sensors
- Humidity Detection
- Gas Leak Detection



SPECIFICATIONS ($T_a=25^{\circ}\text{C}$) :

■ Electro-Optical Characteristics (@ $T_a=25^{\circ}\text{C}$ / $V_{cc}=3.3\text{V}$)

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|------------------|--------------------------|--|------|------|------|------------|
| Active Diameter | | | | 1 | | mm |
| Detection Range | | | 1100 | | 1620 | nm |
| Responsivity | R | $\lambda=1310\text{nm}$, $V_r=5\text{V}$ | 0.80 | 0.90 | | A/W |
| | | $\lambda=1550\text{nm}$, $V_r=5\text{V}$ | 0.85 | 0.95 | | |
| Dark Current | Id | $V_r=5\text{V}$ | | | 10 | nA |
| Capacitance | Cp | $V_r=0\text{V}$ | | 100 | 200 | pF |
| Shunt Resistance | R_{shunt} | $V_r=10\text{mV}$ | 30 | | | M Ω |
| Bandwidth | BW | $V_r=5\text{V}$ | 50 | | | MHz |

■ **Absolute maximum ratings:**

| Parameters | Symbol | Min | Max | unit | conditions |
|-----------------------|--------|-----|-----|------|------------|
| Storage Temperature | Tstg | -40 | 85 | °C | |
| Operating Temperature | Top | -40 | 85 | °C | |
| Input Optical Power | Po | | 10 | mW | |
| Reverse Voltage | Vrd | | 15 | V | |
| Forward Current | Ifd | | 10 | mA | |

OUTLINE DIMENSION:

