

PIN-Photodiode

The multi purpose PD-Module

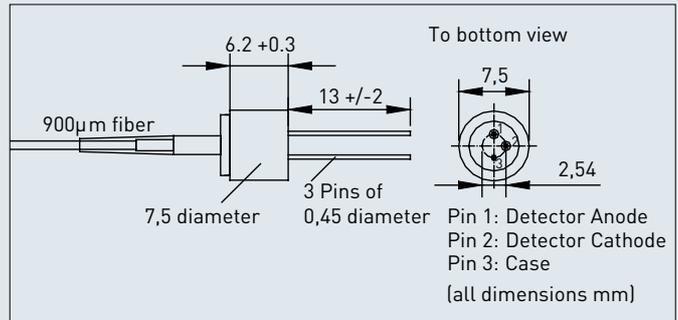


Description

- InGaAs/InP-PIN-Photodiode
- Designed for digital applications in fiberoptic communication systems
- Suitable for bit rates up to 2,5 Gb/s
SONET OC-1...OC-48
SDH STM-1...STM-16
- Hermetically sealed 3-pin TO46 case
- Multimode on single mode fiber pigtail
- Sensitive in both opt. Windows (1310 and 1550 nm)
- Low junction and low package capacitance
- Low dark current, low noise
- High reverse-current stability from planar structure

PIN-Photodiode

Technical Specifications



Characteristics

All optical data refer to a coupled 10/125 µm SM fiber at ambient temperature of 25°C

| Parameter | Min | Typ | Max | Unit |
|---|-----|-----|-------|------|
| <i>Responsivity</i> | | | | |
| $\lambda = 1310 \text{ nm}, 1550 \text{ nm}, V_R = 2V$ | 0.8 | 0.9 | 1.05 | A/W |
| <i>Change in responsivity in operating temperature range</i> | | 0.2 | | %/K |
| <i>Rise and fall time (10%-90%)</i> | | | | |
| $R_L = 50 \Omega, V_R = 2V, P_{opt} = 100 \mu W$ | | 0.2 | 0.3 | ns |
| <i>Total capacitance</i> | | | | |
| $V_R = 3V, \Phi_{port} = 0, f = 1 \text{ MHz}$ | | 0.8 | 1.0 | pF |
| <i>Dark current</i> | | | | |
| $V_R = 2V, T_A = 85^\circ C, \Phi_{port} = 0$ | | | 50 | nA |
| <i>Return Loss @ $\lambda = 1310 \text{ nm}$</i> (pigtailed - 40 dB available on request) | | | (-27) | dB |

| Maximum Ratings | Values | Unit |
|---|----------|------|
| <i>Forward current</i> | 10 | mA |
| <i>Reverse voltage</i> | 20 | V |
| <i>Operating and storage temperature</i> | -40...85 | °C |
| <i>Max. radiant power into the optical port @ $V_R = 5V$</i> | 1 | mW |
| <i>Soldering temperature</i> | | |
| T_{max} for 10 s, 2 mm distance from bottom edge of case | 260 | °C |

Ordering Information

