Silicon PIN Photodiode Module

Features
- High Responsivity
- High speed
- Low dark current, < 10nA
- Low capacitance, typical 6pF
- Operating temperature range -40°C to 85°C
- Hermetically sealed TO-18 package in pigtailed or receptacle housing with FC, ST, SC, LC, MU or SMA connector

Specifications (T=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Test Condition</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsivity (62.5/125 um fiber)</td>
<td>R</td>
<td>LED source of 1mW(λ=850nm)</td>
<td>0.3</td>
<td>0.4</td>
<td>-</td>
<td>A/W</td>
</tr>
<tr>
<td>Spectral Range</td>
<td>λ</td>
<td>-</td>
<td>800</td>
<td>-</td>
<td>1200</td>
<td>nm</td>
</tr>
<tr>
<td>Dark Current</td>
<td>Id</td>
<td>V_R=10V</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>nA</td>
</tr>
<tr>
<td>Capacitance</td>
<td>C_t</td>
<td>V_R=5V,f=1MHz</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>pF</td>
</tr>
<tr>
<td>Rise/Fall Time</td>
<td>tr/tf</td>
<td>20% to 80%</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>ns</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>B</td>
<td>V_R=2V,R_L=50Ω</td>
<td>-</td>
<td>70</td>
<td>-</td>
<td>MHz</td>
</tr>
<tr>
<td>Return Loss</td>
<td></td>
<td></td>
<td>14</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1(Receptacle)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-4(Receptacle or Pigtail)</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-5(Pigtail)</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
</tbody>
</table>

Absolute Maximum Rating

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Min.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>T_0</td>
<td>-40</td>
<td>+85</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>T_stg</td>
<td>-40</td>
<td>+125</td>
</tr>
<tr>
<td>Forward Current</td>
<td>I_F</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>V_R</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Reverse Current</td>
<td>I_R</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Lead Soldering Temperature (10 sec)</td>
<td>T_L</td>
<td>-</td>
<td>260</td>
</tr>
</tbody>
</table>

Ordering Information

- Fiber length
  - R0 for receptacle
  - PG for pigtail 100cm

- Connector type
  - Receptacle: SC, FC or ST
  - Pigtail: SC, FC, ST, LC, MU or SMA

- Flange type
  - B for board mount
  - P for panel mount
  - U for UP mount
  - X for None
  - 1, 4, 5 for return loss
    (please see the spec above)

- Connector: X
  - M1 for 50/125um
  - M2 for 62.5/125um

- Pigtail: P for PC
  - A for APC
Silicon PIN Photodiode Module

Spectral Sensitivity

Ta=25°C

Wavelength λ (nm)

Relative Spectral sensitivity

600 800 900 1000 1100 1200 1300

0 0.2 0.4 0.6 0.8 1.0
Silicon PIN Photodiode Module

UNIT: MM

**BOTTOM VIEW**

**PIN CONNECTIONS**

- **FC-BM**
- **ST-BM**
- **FC-PM**
- **FC-BM**
- **ST-BM**
- **ST-PW**
- **SC**