PD-LD Inc. offers a variety of standard and custom PIN Photodiodes and APDs is fiber coupled packages. The semiconductors offered are of proven manufacture and design. InGaAs is optimal from 1100 to 1650nm. All devices are available in fiber pigtailed coaxial packages or in connector style receptacle packages.

**Pigtailed**
Devices can be pigtailed with any size optical fiber that is compatible with its active area size. Pigtails may range in core size from 3um to 100micron. One meter is the standard length, but any length or connector termination may be specified. Pigtails may be terminated with ST, FC, SC and LC connectors with either PC or APC polish.

**Receptacles**
Standard ST, FC and SC housings are available in both panel and board mountable versions. These receptacles can be optimized for use with both single mode and multimode optical fibers.

**RoHS Compliant**

### Low Back Reflection Assemblies
For those applications requiring low optical back reflection, PD-LD offers a series of fiber pigtailed InGaAs detectors. Typically, 55 um or 70um InGaAs detectors are aligned to angle-polished, radially tuned fiber pig-tails, in order to minimize incident reflected light. With this process, back reflection values may be minimized. Such devices are ideal for CATV, tap monitor and high speed digital applications.

### Manufacturing
PD-LD Inc. maintains a large inventory of the most popular detector sizes and pin-outs. Efficient package designs and manufacturing processes allow PD-LD to rapidly support both small and large volume requirements. Complete 100% testing of all critical parametric device values ensure optimal performance and quality. Not all receptacle packaging styles are represented on this data sheet, so please contact PD-LD for specific needs.

---

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Min.</th>
<th>Typical</th>
<th>Max</th>
<th>Test Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>nm</td>
<td>1100</td>
<td></td>
<td>1620</td>
<td></td>
</tr>
<tr>
<td>Responsivity</td>
<td>A/W</td>
<td>0.85</td>
<td></td>
<td></td>
<td>1550nm</td>
</tr>
<tr>
<td>Back Reflection</td>
<td>dB</td>
<td>-40</td>
<td></td>
<td></td>
<td>1550nm</td>
</tr>
<tr>
<td>LBR Pigtailed*</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Dark Current</td>
<td>nA</td>
<td>0.2</td>
<td>0.50</td>
<td></td>
<td>Vr=5V, Tc=−25°C</td>
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<tr>
<td>Capacitance</td>
<td>pF</td>
<td>0.45</td>
<td>0.6</td>
<td></td>
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</tr>
<tr>
<td>Bandwidth</td>
<td>GHz</td>
<td>5.0</td>
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</tr>
<tr>
<td>Single Second Order</td>
<td>dB</td>
<td>-75</td>
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<td></td>
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<tr>
<td>beat</td>
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</tr>
<tr>
<td>Single Third Order</td>
<td>dB</td>
<td>-85</td>
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<tr>
<td>beat</td>
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</table>

Notes: Pavg=0dBm, MI=0.4, Vr=12V, F1=550MHz, F2=55MHz, Rload=50Ohms
Pigtailed
PDXXKAAAFAFCCB-O-V-M

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Device Code</th>
<th>Active Area</th>
<th>Fiber Size (μm)</th>
<th>Connector</th>
<th>Bracket</th>
<th>Orientation</th>
<th>Version</th>
<th>Pigtail Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN=InGaAs PIN</td>
<td>CF= 70um diameter with &quot;T&quot; style pin-out</td>
<td>070=70microns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5= Low Back Reflection, -0.40dB max, 9/125/900um</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3=62.5/125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>S=9.5um PM Panda</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>T=10.5um PM Panda</td>
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<tr>
<td>00=no connector</td>
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<tr>
<td>FA=FC/APC</td>
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</tr>
<tr>
<td>A=None</td>
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<td></td>
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</tr>
<tr>
<td>D= Board Mount</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>0= not applicable</td>
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<tr>
<td>A= Bracket shipped loose with unit</td>
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<td>0=standard</td>
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<td>1= customer specific testing</td>
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Receptacle
PDXXKAAAARRRF-O-V

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Device Code</th>
<th>Active Area</th>
<th>Receptacle</th>
<th>Fiber</th>
<th>Orientation</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN=InGaAs PIN</td>
<td>CF= 70um diameter with &quot;T&quot; style pin-out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>070=70microns</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>FC1=FC Panel mount</td>
<td></td>
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<tr>
<td>FC2=FC Board mount</td>
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<td></td>
</tr>
<tr>
<td>SC2= SC Board mount</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ST6= ST board mount</td>
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<tr>
<td>1=9/125um</td>
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<tr>
<td>M= standard</td>
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</tr>
<tr>
<td>0=standard</td>
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<tr>
<td>1= customer specific testing</td>
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</table>

### InGaAs Absolute Maximum Ratings (Tc=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Reverse Current</td>
<td>I_R</td>
<td>7</td>
<td>mA</td>
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<tr>
<td>Reverse Voltage</td>
<td>V_R</td>
<td>20</td>
<td>V</td>
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<tr>
<td>Forward Current</td>
<td>I_F</td>
<td>7.0</td>
<td>mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>T_OMP</td>
<td>-40 to 85</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>T_STR</td>
<td>-40 to 95</td>
<td>°C</td>
</tr>
<tr>
<td>Input Optical Power</td>
<td>P</td>
<td>8</td>
<td>mW</td>
</tr>
<tr>
<td>Soldering Temperature</td>
<td>P</td>
<td>260/10</td>
<td>°C/sec</td>
</tr>
</tbody>
</table>

PD-LD Inc. reserves the right to make modifications to or discontinue products without prior notice.

PD-LD, Inc.
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Mechanical Drawing for Coaxial Fiber Pigtailed PIN Photodiode

FC Board Mount Receptacle Assembly
PDINCF070FC21-M-0
FC Panel Mount Receptacle with “M” Lead Orientation
PDINCF070FC11-M-0
SC Board Mount Receptacle Assembly