PD-LD Inc. offers a variety of standard Surface Emitting LED’s (SLEDs) in ready to use fiber coupled packages.

The SLED product offering includes both 850nm and 1310nm devices. These units produce broad spectrum, incoherent light and have wide spectral widths. Such SLED’s may be modulated from DC to 150 MHz or operated in continuous wave mode.

These devices may be operated in both analog or digital applications. It is typical to drive the SLED’s with up to 100mA forward current. Such devices do not require internal monitor photodiodes which simplifies drive circuit designs.

**Features 850nm SLEDs**
- High reliability GaAlAs Diode
- Compact, robust receptacle & coax fiber-coupled package
- 5 to 30 uW into MMF

**Features 1310nm SLEDs**
- InGaAs Diodes systems
- Wide Spectral Width, 160nm
- Ideal for Networking Applications
- DC to 200MHz operation

### Performance Specifications (Representative sample, other options available)

<table>
<thead>
<tr>
<th>PD-LD Part Number</th>
<th>Wavelength (nm)</th>
<th>Operating Current (mA) Typ.</th>
<th>Typical Max.</th>
<th>Fiber Type Core/Cladding (um)</th>
<th>Fiber Coupled Power (uW) Min.</th>
<th>Typ.</th>
<th>Pin-Out</th>
<th>Spectral Width FWHM (nm)</th>
<th>Rise/Fall Time Max. (nsec)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>850nm GaAlAs SLED (I_{op}=100mA @ 25C, 1.8V)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PS85K020SC22-Q-0</td>
<td>850</td>
<td>100</td>
<td>110</td>
<td>50/125</td>
<td>20</td>
<td>25</td>
<td>D</td>
<td>35</td>
<td>6.0</td>
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<tr>
<td>PS85K035300A-0-0-01</td>
<td>850</td>
<td>100</td>
<td>110</td>
<td>62.5/125</td>
<td>35</td>
<td>40</td>
<td>D</td>
<td>35</td>
<td>6.0</td>
</tr>
<tr>
<td>PS85K020ST72-Q-0</td>
<td>850</td>
<td>100</td>
<td>110</td>
<td>50/125</td>
<td>20</td>
<td>25</td>
<td>D</td>
<td>35</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>1310nm InGaAs SLED (I_{op}=100mA @ 25C, 1.8V)</strong></td>
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<tr>
<td>PS13L030300A-0-0-01</td>
<td>1310</td>
<td>100</td>
<td>110</td>
<td>62.5/125</td>
<td>30</td>
<td>35</td>
<td>D</td>
<td>160</td>
<td>3.0</td>
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<tr>
<td>PS13L020SC22-Q-0</td>
<td>1310</td>
<td>100</td>
<td>110</td>
<td>50/125</td>
<td>20</td>
<td>25</td>
<td>D</td>
<td>160</td>
<td>3.0</td>
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<tr>
<td>PS13T020ST72-Q-0</td>
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<td>100</td>
<td>110</td>
<td>50/125</td>
<td>20</td>
<td>25</td>
<td>D</td>
<td>160</td>
<td>3.0</td>
</tr>
</tbody>
</table>

1Examples only; most device/packaging combinations available. Changes to specifications may be made without notice.
Packaging Options
Packaging options include Receptacle style housings such as ST, FC and SC as well as fiber pigtailed co-axial assemblies. SLEDs are typically used with multi-mode optical fiber and may be specified for coupling to 50um, 62.5um or 100um core optical fibers. Units built with fiber pigtails are available terminated with optical connectors. Specialty fiber sizes may be available upon request.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Pin #1</td>
<td>SLED Anode</td>
</tr>
<tr>
<td>Pin #2</td>
<td>SLED Cathode</td>
</tr>
<tr>
<td>Pin #3</td>
<td>Case Ground</td>
</tr>
</tbody>
</table>
PS Series 850 nm and 1300 nm Surface Emitting LEDs and VCSELs

Ordering Information

Data Legend: Pigtailed Laser Diodes

Ex: PL WWW PPP F CC B-O-V-LL

- **L** = Laser
- **WWW** = Wavelength & Device Type
  - 13B, 13P, 13AM = 1310nm
  - 15B, 15P = 1550nm
- **PPP** = Fiber-Coupled Power
  - 0.1 = 0.10mW (100µW)
  - 0.2 = 0.20mW (200µW)
  - 0.5 = 0.50mW (500µW)
    - 001 = 1.0mW
    - 1.6 = 1.6mW
    - 002 = 2.0mW
- **F** = Fiber Type
  - 1 = 9/125 SMF
  - 2 = 50/125 MMF
  - 3 = 62.5/125 MMF
  - 4 = 100/140 MMF
  - 9 = Customer Supplied
- **CC** = Connector Type
  - ST = ST/PC
  - SC = SC/PC
  - SA = SC/APC
  - FC = FC/PC
  - FA = FC/APC
  - FU = FC/UPC
  - 00 = No Connector
- **B** = Bracket Type
  - A = None
  - B = Panel Mount
  - C = Board Mount
  - G = Board Mount (bracket shipped loose)
- **O** = Orientation
  - 0 = N/A
  - A = Bracket Shipped Loose
- **V** = Version
  - 0 = Standard
  - Unique codes for specific requirements
- **LL** = Length (in meters)
  - 01 = 1m, 02 = 2m, 05 = .5m etc.

Data Legend: Receptacle Laser Diodes

Ex: PL WWW PPP RRR F-O-V

- **L** = Laser
- **WWW** = Wavelength & Device Type
  - 13B, 13P, 13AM = 1310nm
  - 15B, 15P = 1550nm
- **PPP** = Fiber-Coupled Power
  - 0.1 = 0.10mW (100µW)
  - 0.2 = 0.20mW (200µW)
  - 0.5 = 0.50mW (500µW)
    - 001 = 1.0mW
    - 1.6 = 1.6mW
    - 002 = 2.0mW
- **RRR** = Receptacle Type
  - FC1 = FC Panel Mount
  - FC2 = FC Board Mount
  - SC1 = SC Panel Mount only
  - SC2 = SC Panel/Board Mount
  - ST7 = ST low profile
  - ST8 = ST high profile
- **F** = Fiber Type
  - 1 = 9/125 SMF
  - 2 = 50/125 MMF
  - 3 = 62.5/125 MMF
  - 4 = 100/140 MMF
- **O** = Orientation
  - 0 = N/A
- **V** = Version
  - 0 = Standard
  - Unique codes for specific requirements
PS Series 850 nm and 1300 nm Surface Emitting LEDs and VCSELs

Mechanical Dimensions for Receptacle Packages

ST Board Mount Receptacle
Low Profile with "W" Lead Orientation

NOTES:
1. THESE DEVICES ARE ESD SENSITIVE. ESD PRECAUTIONS ARE ADVISED.
2. ALL DEVICES ARE SHIPPED WITH ESD LEAD PROTECTORS AND DUST COVERS.
3. ALL DEVICES WILL BE MARKED WITH A PD-LD SERIAL NUMBER.

ZINC, DIE CAST
NICKEL PLATED
PS Series 850 nm and 1300 nm Surface Emitting LEDs and VCSELs

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- PLASTIC, BLUE
- BRASS, NICKELED PLATED

SC Board Mount Receptacle
“Q” Lead Orientation