OSI Laser Diode, Inc.'s High Power laser modules are designed to meet the performance demands of the optical test equipment marketplace. The high peak optical power LCW / SCW Series lasers serve 1310nm through 1650nm wavelengths and are available in fully hermetic laser welded packages. These packaged lasers can include both TEC and temperature sensing thermistors and back facet monitors for superior wavelength stability over a wide temperature range.

### Characteristics w/TEC: $T_a = -30^\circ$ to $70^\circ$ C; $T_d = +25^\circ$C

### Conditions: $P_w = 10\mu$s; D/C = 1%

| Fiber: SMF 28e® or MMF GI 50; 1 meter min. fiber length for unconnectorized 1 meter +/- 0.1 for connectorized pigtails |

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>Symbol</th>
<th>1330 Series</th>
<th>1430 Series</th>
<th>1530 Series</th>
<th>1630 Series</th>
<th>1650 Series</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical Power (Fiber)</td>
<td>$P$</td>
<td>120</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>mW</td>
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<tr>
<td>Optical Power (TO56)</td>
<td>$P$</td>
<td>350</td>
<td>300</td>
<td>300</td>
<td>250</td>
<td>225</td>
<td>mW</td>
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<tr>
<td>Optical Power (Fiber CW)*</td>
<td>$P$</td>
<td>75</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>55</td>
<td>mW</td>
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<tr>
<td>Forward Current</td>
<td>$I_f$</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>mA</td>
</tr>
<tr>
<td>Threshold Current</td>
<td>$I_{th}$</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>45</td>
<td>45</td>
<td>mA</td>
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<tr>
<td>Forward Voltage</td>
<td>$V_f$</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>V</td>
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<tr>
<td>Center Wavelength</td>
<td>$\lambda$</td>
<td>1290</td>
<td>1310</td>
<td>1330</td>
<td>1470</td>
<td>1490</td>
<td>1510</td>
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<tr>
<td>Spectral Width</td>
<td>$\Delta \lambda$</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>nm</td>
</tr>
<tr>
<td>Cooling Capacity**</td>
<td>$\Delta T$</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>°C</td>
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<tr>
<td>TEC Voltage**</td>
<td>$V_{tec}$</td>
<td>1.2</td>
<td>1.6</td>
<td>1.2</td>
<td>1.6</td>
<td>1.2</td>
<td>1.6</td>
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<tr>
<td>TEC Current**</td>
<td>$I_{tec}$</td>
<td>600</td>
<td>800</td>
<td>600</td>
<td>800</td>
<td>600</td>
<td>800</td>
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<tr>
<td>Operating Temperature Range</td>
<td>$T_{op}$</td>
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<td>-30</td>
<td>70</td>
<td>-30</td>
<td>70</td>
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<tr>
<td>Storage Temperature Range</td>
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<td>85</td>
<td>-40</td>
<td>85</td>
<td>-40</td>
<td>85</td>
</tr>
</tbody>
</table>

*400mA DC  **Cooled Modules Only  Reliability data available upon request
Part Numbering Diagram

When ordering, refer to the numbering diagram below.

**14-pin Butterfly Package**

- **Pin Function**
  - 1: cooler anode (+)
  - 2, 3, 4, 6, 7, 8, 13: no connection
  - 5: laser anode (+), ground
  - 9: laser cathode (-)
  - 10: ground
  - 11, 12: thermistor
  - 14: cooler cathode (-)

**14-pin DIP Package**

- **Pin Function**
  - 1: cooler anode (+)
  - 2, 3, 4, 6, 7, 8, 12, 13: no connection
  - 5: laser anode (+), ground
  - 9: laser cathode (-)
  - 10: ground, thermistor
  - 11: thermistor
  - 14: cooler cathode (-)

*Cooled Package Only. No connection for uncooled pkg.*

**14-pin Butterfly Package and 14-pin DIP Package F Series and G Series**

<table>
<thead>
<tr>
<th>F Series (Floating Thermistor)</th>
<th>G Series (Ground Thermistor)</th>
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</thead>
<tbody>
<tr>
<td><strong>Pin</strong></td>
<td><strong>Function</strong></td>
</tr>
<tr>
<td>1</td>
<td>cooler anode (+)</td>
</tr>
<tr>
<td>2, 3, 4, 6, 7, 8, 13</td>
<td>no connection</td>
</tr>
<tr>
<td>5</td>
<td>laser anode (+), ground</td>
</tr>
<tr>
<td>9</td>
<td>laser cathode (-)</td>
</tr>
<tr>
<td>10</td>
<td>ground</td>
</tr>
<tr>
<td>11, 12</td>
<td>thermistor</td>
</tr>
<tr>
<td>14</td>
<td>cooler cathode (-)</td>
</tr>
</tbody>
</table>

**Coaxial Package**

- **Pin Function**
  - 1: Laser cathode (-)
  - 2: Laser anode (+)/ Ground
  - 3: No Connection

**TO56 Package**

- **Component**
  - **Product Type**
    - 3 = Pulsed
    - B = Pulsed with Back Facet Monitor
    - C = CW
    - D = CW with Back Facet Monitor
  - **Output Power Pulsed**
    - 120 ± 120mW
    - 100 ± 100mW
    - Other Consult LDI Sales
  - **Output Power CW**
    - 075 ± 75mW
    - 055 ± 55mW
  - **Output Power TO56**
    - 225 ± 225mW
    - 250 ± 250mW
    - 250 ± 250mW
    - 300 ± 300mW
    - 550 ± 550mW

**Warranty:**

Please refer to your product purchase agreement for complete details or check with your OSI Laser Diode sales representative.

**Personal Hazard and Handling Precautions:**

Handle optical fiber with normal care, avoiding stretch, tension, twist, kink or bend abuse. ESD precautions apply.

Normal aversion reactions will not protect from radiation hazards; to the eye associated with devices of this kind. 1310nm lasers are IEC Class 3R; higher wavelengths are Class 1 lasers when operated at rated conditions. IEC 3B for all CW models.

**Notice:**

OSI Laser Diode, Inc. reserves the right to make changes to the products or information contained herein without notice. No liability is assumed as a result of their use or application.

Products can be ordered directly from OSI Laser Diode, Inc. or its representatives.

For a complete listing of representatives, visit our website at www.laserdiode.com

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