1064nm Narrow Line Width Butterfly Laser Diode
800mW Output Power, 105µm Fiber Coupled

RLS / 1064NM-800MW-RL
- Butterfly Package Laser Diode
- Narrow Line Width < 0.1nm
- 105µm Fiber-Coupled, FC/PC Connector
  SMA905 Connector Optional
- Industry-Standard Type-1 Pinout
**BUTTERFLY LASER DIODE**
These multimode butterfly-packaged lasers deliver high power, narrow line width laser light due to the internal volume Bragg grating.

**RELIABLE PERFORMANCE IN A STANDARD LASER PACKAGE**
These laser diodes are offered in an industry standard 14-pin butterfly package with a 105µm multi-mode fiber pigtail, terminated with an FC/PC connector.

The laser package integrates a thermo-electric cooler with 10 kΩ thermistor, and an internal monitor photodiode.

The pinout is industry-standard Type-1 pinout. The package is electrically floating relative to ground, offering flexibility in mounting and control of the laser.

**DIMENSIONS AND PINOUT**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
<th>Pin</th>
<th>Function</th>
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<tbody>
<tr>
<td>1</td>
<td>TEC (+)</td>
<td>14</td>
<td>TEC (–)</td>
</tr>
<tr>
<td>2</td>
<td>Thermistor</td>
<td>13</td>
<td>–</td>
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<tr>
<td>3</td>
<td>PD Anode</td>
<td>12</td>
<td>–</td>
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<tr>
<td>4</td>
<td>PD Cathode</td>
<td>11</td>
<td>Laser Diode Cathode</td>
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<tr>
<td>5</td>
<td>Thermistor</td>
<td>10</td>
<td>Laser Diode Anode</td>
</tr>
<tr>
<td>6</td>
<td>–</td>
<td>9</td>
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<td>7</td>
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<td>8</td>
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**SPECIFICATIONS**

**LASER SPECIFICATIONS**
- CW Output Power: 800 mW
- Center Wavelength: 1064 nm (±0.5 nm)
- Spectral Width: < 0.1 nm
- Temperature Tuning Coefficient: 0.01 nm/°C
- Current Tuning Coefficient: 0.05 nm/A

**FIBER AND CONNECTOR**
- Fiber Core Diameter: 105 µm
- Fiber Cladding Diameter: 125 µm
- Fiber Coating Diameter: 250 µm
- Numerical Aperture: 0.22 NA
- Connector: FC/PC or SMA905 (specify @ time of order)
- Fiber Length: 100 cm ±10 cm

**ELECTRICAL SPECIFICATIONS**
- Threshold Current: 0.2 A
- Operating Current: 1.5 A
- Operating Voltage: 1.8 V
- TEC max Current: 2.5 A
- TEC max Voltage: 6.3 V
- Monitor Photodiode Range: 2000 µA
- Thermistor: 10 (±5%) kΩ (@25°C)
- Slope Efficiency: 0.6 W/A

**GENERAL SPECIFICATIONS**
- Operating Temperature Range: 10°C – 30°C
- Storage Temperature Range: -20°C – 70°C
- Max Operating Humidity, Relative: 75 %
- Max Storage Humidity, Relative: 90 %
- Lead Soldering Temp: 250°C max, 10 sec

**PRIMARY APPLICATIONS**
- Raman Spectroscopy
- Analytical Instruments
- Biological Research
PRODUCT SALES AND SERVICE:
Unlimited phone and email support is provided for products purchased through Laser Lab Source. Orders for this product are fulfilled by Laser Lab Source in North America and select international regions. It is manufactured by Real-Light, Beijing.

PRODUCT WARRANTY:
This product is sold with a full one-year warranty. It is warrantied to be free from defects in material and/or workmanship for a period of one year from the date of shipment.

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