Thorlabs offers a range of laser diode sockets that provide compatibility with our wide selection of Ø3.8 mm, Ø5.6 mm, Ø9 mm, and TO-5 laser diode packages. These sockets have gold-plated BeCu contacts and meet RoHS compliance. The S8058, S8060, and S8060-4 sockets have a polarization dot on the top of the package (see drawings below for more information). Colors vary by lot and may be white, off white, black, or tan.

Thorlabs also offers a hand-held diode can opener (WR1) designed to remove the cap from TO-style diode packages. Removing the cap from the diode package allows for closer access to the actual laser chip and is beneficial when the entrance windows are adversely impacting an optical signal with etalon effects or wavelength filtering.
<table>
<thead>
<tr>
<th>Item #</th>
<th>S038S</th>
<th>S7060R</th>
<th>S8058</th>
<th>S8060</th>
<th>S8060-4</th>
</tr>
</thead>
</table>

**Material**
- Beryllium Copper (BeCu)

**Insulator**
- FR-4
- Teflon

**Compatible Lead Diameters**
- S038S: 0.008" - 0.014" (0.20 mm - 0.36 mm)
- S8058: 0.016" - 0.020" (0.41 - 0.51 mm)

**Compatible Lead Lengths**
- S038S: ≤0.09" (2.27 mm)
- S8058: ≤0.15" (3.8 mm)

**Outer Diameter**
- S038S: 0.153" (3.9 mm)
- S8058: 0.20" (5.1 mm)
- S8060: 0.25" (6.4 mm)

**Substrate Thickness**
- S038S: 0.093" (2.4 mm)
- S8058: 0.165" (4.2 mm)
- S8060: 0.19" (4.8 mm)

**Drawing**
- [Click for Details](https://www.thorlabs.com/newgrouppage9_pf.cfm?guide=10&category_id=98&objectgroup_id=302)

**Compatibility**

<table>
<thead>
<tr>
<th>Laser Diodes</th>
<th>Ø3.8 mm</th>
<th>Ø5.6 mm</th>
<th>Ø9.0 mm</th>
<th>TO-5</th>
<th>TO-18</th>
<th>TO-46</th>
</tr>
</thead>
<tbody>
<tr>
<td>S038S</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>S8058</td>
<td>x</td>
<td>✓</td>
<td>x</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>S8060-4</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>o</td>
</tr>
</tbody>
</table>

- ✓ Fully Compatible
- o Not a Perfect Fit, but Functional
- x Not Compatible

**Part Number**
- S038S: Laser Diode Socket for Ø3.8 mm Laser, 3 Pin
  - $3.80
  - Today
- S7060R: Laser Diode Socket for Ø5.6 mm Laser, 3 Pin
  - $5.35
  - Today
- S8058: Laser Diode Socket for TO-5 Package, 3 Pin
  - $9.60
  - 3-5 Days
- S8060: Laser Diode Socket for Ø9 mm Laser, 3 Pin
  - $6.70
  - Volume Pricing Available
  - Today
- S8060-4: Laser Diode Socket for Ø9 mm Laser, 4 Pin
  - $7.30
  - Today

**ESD Protection and Strain Relief**

- Includes Laser Socket and 3 Feet (0.91 m) of Shielded Cable
- External 1/32"-40 Threads for Compatibility with Laser Diode Collimation and Focusing Tubes and Laser Diode Cage Plate Mounts
- Includes Clamping and Reverse Protection Diodes to Suppress ESD
- Available with DB9 Connector for Mating Directly with LDC200C Series Laser Controllers

These strain relief and ESD protection products offer a convenient means of connecting a Ø5.6 mm or Ø9 mm laser diode to many of Thorlabs' laser diode controllers. Each model comes with a laser socket mounted to a small printed circuit board (PCB). The PCB contains a Schottky diode to clamp any reverse voltages that might appear across the laser diode, as well as a Zener diode to shunt any excessive voltages or ESD away from the diode.

Each model corresponds to one or more of the standard Pin Styles for laser diodes (see the diagram below) and is compatible with our Laser Diode Collimation and Focusing Tubes and Laser Diode Cage Plate Mounts. SR9 models are designed for laser diodes with forward voltages up to 3.3 V, while SR9H models are designed for laser diodes with forward voltages up to 7.5 V. Each strain relief is available with or without

**Item #**
- SR9A: A and E
- SR9B: B and H
- SR9C: C and H
- SR9D: D
- SR9F: F and G
- SR9HA: A and E
- SR9HB: B and H
- SR9HF: F and G

**Max LD Forward Voltage**
- 3.3 V
- 7.5 V

Note: A - DB9 at the end of the part number indicates a DB9 connector. Otherwise, the end of the cable is terminated with bare wires.

a DB9 connector. Models with item #’s that end in -DB9 are pin compatible with many of our Laser Diode Controllers (see the strain relief cable and controller pin diagrams to determine compatibility).

Note: These cables are not designed to provide any temperature regulation. More information on temperature regulating a laser diode is provided in the Laser Diode Tutorial.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Price</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR9A</td>
<td>ESD Protection and Strain Relief Cable, Pin Codes A and E, 3.3 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9A-DB9</td>
<td>ESD Protection and Strain Relief Cable, Pin Codes A and E, 3.3 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9B</td>
<td>ESD Protection and Strain Relief Cable, Pin Codes B and H, 3.3 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9B-DB9</td>
<td>ESD Protection and Strain Relief Cable, Pin Codes B and H, 3.3 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9C</td>
<td>ESD Protection and Strain Relief Cable, Pin Codes C and H, 3.3 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9C-DB9</td>
<td>ESD Protection and Strain Relief Cable, Pin Codes C and H, 3.3 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9D</td>
<td>ESD Protection and Strain Relief Cable, Pin Code D, 3.3 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9D-DB9</td>
<td>ESD Protection and Strain Relief Cable, Pin Code D, 3.3 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9F</td>
<td>NEW! ESD Protection and Strain Relief Cable, Pin Codes F and G, 3.3 V</td>
<td>$49.00</td>
<td>3-5 Days</td>
</tr>
<tr>
<td>SR9F-DB9</td>
<td>NEW! ESD Protection and Strain Relief Cable, Pin Codes F and G, 3.3 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9HA</td>
<td>Customer Inspired! ESD Protection and Strain Relief Cable, Pin Codes A and E, 7.5 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9HA-DB9</td>
<td>Customer Inspired! ESD Protection and Strain Relief Cable, Pin Codes A and E, 7.5 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9HB</td>
<td>Customer Inspired! ESD Protection and Strain Relief Cable, Pin Codes B and H, 7.5 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9HB-DB9</td>
<td>Customer Inspired! ESD Protection and Strain Relief Cable, Pin Codes B and H, 7.5 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9HF</td>
<td>NEW! ESD Protection and Strain Relief Cable, Pin Codes F and G, 7.5 V</td>
<td>$49.00</td>
<td>Today</td>
</tr>
<tr>
<td>SR9HF-DB9</td>
<td>NEW! ESD Protection and Strain Relief Cable, Pin Codes F and G, 7.5 V, with DB9</td>
<td>$52.00</td>
<td>Today</td>
</tr>
</tbody>
</table>

**Can Opener for Laser Diodes and Photodiodes**

- Ideal for: Ø2 mm through Ø24 mm Laser Diode Packages
- Compatible with TO-3, TO-5, TO-8, TO-18, TO-39, and TO-46 Packages

The WR1 is a hand-held device designed to remove the cans from standard laser packages. Many applications, such as fiber pigtailing, can be optimized by having closer access to the laser chip.

Operation is as simple as placing a diode onto the two rollers at the front of the device, lightly applying pressure with the rubber covered grips, and turning the blade actuator (as shown in the image to the right). The precision ground, hardened steel blade will easily cut through the wall of the diode can, safely removing it. For packages greater than 20 mm (0.8”) in diameter, the rollers must be removed and reinstalled in their outer mounting positions using a 5/64” (2 mm) hex key.

The WR1 is also compatible with any photodiodes and LEDs packaged in one of the TO can sizes listed above.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Price</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>WR1</td>
<td>Can Opener for Laser Diodes</td>
<td>$131.60</td>
<td>Today</td>
</tr>
</tbody>
</table>

Visit the Laser Diode Tools and Accessories page for pricing and availability information: