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THORLABS

VCSEL-850 - January 26, 2016

Item # VCSEL-850 was discontinued on January 26, 2016. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

NIR LASER DIODES: CENTER WAVELENGTHS FROM 705 NM TO 2000 NM

- Output Powers up to 3 W
- Multiple Package Styles
- In-House Manufactured and Third-Party Options Available

Hide Overview

OVERVIEW

Features

- Fabry-Perot (FP), Distributed Feedback (DFB), Volume Holographic Grating (VHG), Distributed Bragg Reflector (DBR), and Vertical-Cavity Surface-Emitting (VCSEL) Laser Diodes
- Output Powers up to 3 W
- Center Wavelengths Available from 705 nm to 2000 nm
- Various Packages Available: TO Can, TO Pigtails, Butterfly, C-Mount, and Chip on Submount
- Easily Choose a Compatible Mount Using Our LD Pin Codes
- Compatible with Thorlabs' Laser Diode and TEC Controllers
- OEM Solutions Available

This web page contains Thorlabs' laser diodes with center wavelengths from 705 nm to 2000 nm. Diodes are arranged by wavelength and then power. The tables below list basic specifications to help you narrow down your search quickly. Lasers that are highlighted in light green in these tables below are single-frequency laser diodes. The blue button in the Info column within the tables opens a pop-up window that contains more detailed specifications for each item, as well as mechanical drawings.

Notes on Center Wavelength
While the center wavelength is listed for each laser diode, this is only a typical

Laser Diode Selection Guide	
Shop by Wavelength	UV (375 nm) Visible (404 nm - 690 nm) NIR (705 nm - 2000 nm) MIR (3.42 µm - 9.60 µm)
Shop by Package/Type	TO Can (Ø3.8, Ø5.6, Ø9, and Ø9.5 mm) TO Can Pigtail (SM) TO Can Pigtail (PM) TO Can Pigtail (MM) FP Butterfly Package FBG-Stabilized Butterfly Package Chip on Submount MIR Fabry-Perot Two-Tab C-Mount One-Tab C-Mount
	Single Frequency Lasers
	DFB Single-Frequency TO Can Pigtail (SM) VHG-Stabilized Single-Frequency ECL Single-Frequency Butterfly Package DBR Single-Frequency Butterfly Package MIR DFB Two-Tab C-Mount MIR DFB D-Mount

number. The center wavelength of a particular unit varies from production run to production run, so the diode you receive may not operate at the typical center wavelength. Diodes can be temperature tuned, which will alter the lasing wavelength. A number of items below are listed as Wavelength Tested, which means that the dominant wavelength of each unit has been measured and recorded. For many of these items, after clicking "Choose Item" below, a list will appear that contains the dominant wavelength, output power, and operating current of each in-stock unit. Clicking on the red Docs Icon next to the serial number provides access to a PDF with serial-number-specific L-I-V and spectral characteristics. Customers may also contact Tech Support to select one of these diodes based on the tested wavelength if serial-number-specific information is not available below.

Webpage Features	
	Clicking this icon opens a window that contains specifications and mechanical drawings.
	Clicking this icon allows you to download our standard support documentation.
Choose Item	Clicking the words "Choose Item" opens a drop-down list containing all of the in-stock lasers around the desired center wavelength. The red icon next to the serial number then allows you to download L-I-V and spectral measurements for that serial-numbered device.

Packages and Mounts

We offer laser diodes in various packages including standard Ø5.6 mm and Ø9 mm TO packages, as well as Fiber-Pigtailed TO-Packaged Diodes, Chip on Submounts, and C-Mounts. We have categorized the pin configuration of TO-packaged diodes in to standard A, B, C, D, E, F, G, and H pin codes (see image below). This pin code allows the user to easily determine compatible mounts. TO-packed diodes are the most widely supported diodes by our product line, followed by butterfly-packaged lasers. Chip on Submount and C-Mount lasers are better suited for OEM applications.

OEM & Custom Laser Diodes

Thorlabs manufactures custom and high volume OEM laser diodes and other optical semiconductor devices with output wavelengths from 705 nm to 2 µm.

Contact Us

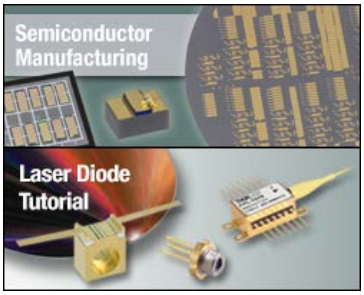
To inquire about custom or OEM devices, please contact us. A semiconductor specialist will contact you within 24 hours or the next business day.

Some of our diodes are offered in header packages that can be converted to a sealed TO can package by request, as indicated in the tables below. Please contact Tech Support for details.

Spatial Mode and Linewidth

We offer laser diodes with different output characteristics (power, wavelength, beam size, shape, etc.). Most lasers offered here are single spatial mode (single mode, or SM) and a few are designed for higher-power, multi-spatial-mode (multimode, or MM) operation. Some single mode laser diodes can be operated with limited single-longitudinal-mode characteristics. For better side mode suppression ratio (SMSR) performance, consider devices such as DFB lasers, VHG-stabilized lasers, DBR lasers, or external cavity lasers. Thorlabs also offers single-frequency lasers with very narrow linewidths (≤20 MHz for the VHG-stabilized and DFB lasers and <100 kHz for the DBR and ECL lasers), which are highlighted in green in the tables below. Alternatively, broad-area lasers (BAL Series), which have a spectral bandwidth of 1.5 to 3 nm and offer high output powers >2 W, are also available. Please see our Laser Diode Tutorial for more information on these topics and laser diodes in general.

Laser diodes are sensitive to electrostatic shock. Please take the proper precautions when handling the device (see our electrostatic shock accessories). Lasers diodes are also sensitive to optical feedback, which can cause significant fluctuations in the output power of the laser diode depending on the application. See our optical isolators for potential solutions to this problem.



For all of the pigtailed laser diodes, the laser should be off when connecting or disconnecting the device from other fibers, particularly for lasers with power levels above 10 mW. We recommend cleaning the fiber connector before each use if there is any chance that dust or other contaminants may have deposited on the surface. The laser intensity at the center of the fiber tip can be very high and may burn the tip of the fiber if contaminants are present. While the connectors on the pigtailed laser diodes are cleaned and capped before shipping, we cannot guarantee that they will remain free of contamination after they are removed from the package.

Members of our Technical Support staff are available to help you select a laser diode and to discuss possible operation issues.

Pin Codes

For warranty information and the Thorlabs Life Support and Military Use Policy for laser diodes, please refer to the *LD Operation* tab.

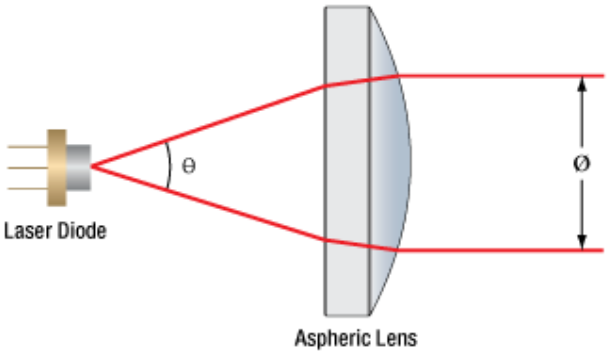
COLLIMATION TUTORIAL

Choosing a Collimation Lens for Your Laser Diode

Since the output of a laser diode is highly divergent, collimating optics are necessary. Since aspheric lenses do not introduce spherical aberration, they are commonly chosen when the collimated laser beam is to be between one and five millimeters. A simple example will illustrate the key specifications to consider when choosing the correct lens for a given application.

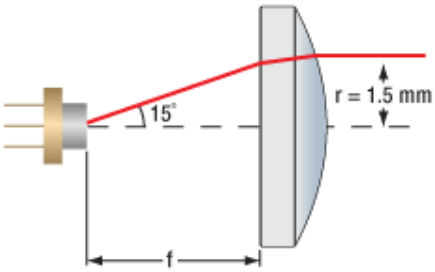
Example:
Laser Diode to be Used: L780P010
Desired Collimated Beam Diameter: Ø3 mm (Major Axis)

The specifications for the L780P010 laser diode indicate that the typical parallel and perpendicular FWHM beam divergences are 10° and 30°, respectively. Therefore, as the light diverges, an elliptical beam will result. To collect as much light as possible during the collimation process, consider the larger of these two divergence angles in any calculations (i.e., in this case use 30°). If you wish to convert your elliptical beam in to a round one, we suggest using an Anamorphic Prism Pair, which magnifies one axis of your beam.



Ø = Beam Diameter Θ = Divergence Angle

From the information above, the focal length of the lens can be determined, using the thin lens approximation:



$$f = \frac{1.5\text{ mm}}{\tan 15^\circ} = 5.6\text{ mm}$$

With this information known, it is now time to choose the appropriate collimating lens. Thorlabs offers a large selection of aspheric lenses to choose from. For this application the ideal lens is a -B AR-coated molded glass aspheric lens with focal length near 5.6 mm. The C171TMD-B (mounted) or 354171-B (unmounted) aspheric lenses have a focal length of 6.20 mm, which will result in a collimated beam diameter (major axis) of 3.3 mm. Next, check to see if the numerical aperture (NA) of the diode is smaller than the NA of the lens:

$$0.30 = NA_{Lens} > NA_{Diode} \approx \sin(15^\circ) = 0.26$$

Up to this point, we have been using the FWHM beam diameter to characterize the beam. However, a better practice is to use the $1/e^2$ beam diameter. For a Gaussian beam profile, the $1/e^2$ diameter is almost equal to 1.7X the FWHM diameter. The $1/e^2$ beam diameter therefore captures more of the laser diode's output light (for greater power delivery) and minimizes far-field diffraction (by clipping less of the incident light).

A good rule of thumb is to pick a lens with an NA twice of the NA of the laser diode. For example, either the A390-B or the A390TM-B could be used as these lenses each have an NA of 0.53, which is more than twice the approximate NA of our laser diode (0.26). Note that these lenses each have a focal length of 4.6 mm, resulting in an approximate major beam diameter of 2.5 mm.

LD OPERATION

Laser Diode and Laser Diode Pigtail Warranty

When operated within their specifications, laser diodes have extremely long lifetimes. Most failures occur from mishandling or operating the lasers beyond their maximum ratings. Laser Diodes are among the most static-sensitive devices currently made. Proper ESD Protection should be worn whenever handling a laser diode. Due to their extreme electrostatic sensitivity, laser diodes cannot be returned after their sealed package has been open. Laser diodes in their original sealed package can be returned for a full refund or credit.

Handling and Storage Precautions

Due to their extreme susceptibility to damage from electrostatic discharge (ESD), care should be taken whenever handling and operating laser diodes:

- Wrist Straps: Use grounded anti-static wrist straps whenever handling diodes.
- Anti-Static Mats: Always work on grounded anti-static mats.
- Laser Diode Storage: When not in use, short the leads of the laser together to protect against ESD damage.

Operating and Safety Precautions

Use an Appropriate Driver:
Laser diodes require precise control of operating current and voltage to avoid overdriving the laser diode. In addition, the laser driver should provide protection against power supply transients. Select a laser driver appropriate for your application. Do not use a voltage supply with a current limiting resistor since it does not provide sufficient regulation to protect the laser.

Power Meters:
When setting up and calibrating a laser diode with its driver, use a NIST-traceable power meter to precisely measure the laser output. It is usually safest to measure the laser output directly before placing the laser in an optical system. If this is not possible, be sure to take all optical losses (transmissive, aperture stopping, etc.) into consideration when determining the total output of the laser.

Reflections:
Flat surfaces in the optical system in front of a laser diode can cause some of the laser energy to reflect back onto the laser's monitor photodiode giving an erroneously high photodiode current. If optical components are moved within the system and energy is no longer reflected onto the monitor photodiode, a constant power feedback loop will sense the drop in photodiode current and try to compensate by increasing the laser drive current and possibly overdriving the laser. Back reflections can also cause other malfunctions or damage to laser diodes. To avoid this, be sure that all surfaces are angled 5-10°, and when necessary, use optical isolators to attenuate direct feedback into the laser.

Heat Sinks:
Laser diode lifetime is inversely proportional to operating temperature. Always mount the laser in a suitable heat sink to remove excess heat from the laser package.

Voltage and Current Overdrive:
Be careful not to exceed the maximum voltage and drive current listed on the specification sheet with each laser diode, even momentarily. Also, reverse voltages as little as 3 V can damage a laser diode.

ESD Sensitive Device:
Currently operating lasers are susceptible to ESD damage. This is particularly aggravated by using long interface cables between the laser diode and its driver due to the inductance that the cable presents. Avoid exposing the laser or its mounting apparatus to ESDs at all times.

ON/OFF and Power Supply Coupled Transients:
Due to their fast response times, laser diodes can be easily damaged by transients less than 1 µs. High current devices such as soldering irons, vacuum pumps, and fluorescent lamps can cause large momentary transients. Thus, always use surge-protected outlets.

If you have any questions regarding laser diodes, please call your local Thorlabs Technical Support office for assistance.

Life Support and Military Use Application Policy

Thorlabs' products are not authorized for use as critical components in life support devices or systems or in any military applications without the express written approval of the president of Thorlabs:

1. Life support devices or systems are devices or systems intended for either surgical implantation into the body or to sustain life and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of

the life support device or system or to affect its safety or effectiveness.

3. Thorlabs' laser diodes are not intended nor warranted for usage in Military Applications.

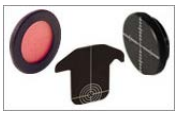
Hide Laser Safety

LASER SAFETY

Laser Safety and Classification

Safe practices and proper usage of safety equipment should be taken into consideration when operating lasers. The eye is susceptible to injury, even from very low levels of laser light. Thorlabs offers a range of laser safety accessories that can be used to reduce the risk of accidents or injuries. Laser emission in the visible and near infrared spectral ranges has the greatest potential for retinal injury, as the cornea and lens are transparent to those wavelengths, and the lens can focus the laser energy onto the retina.

Safe Practices and Light Safety Accessories




- Thorlabs recommends the use of safety eyewear whenever working with laser beams with non-negligible powers (i.e., > Class 1) since metallic tools such as screwdrivers can accidentally redirect a beam.
- Laser goggles designed for specific wavelengths should be clearly available near laser setups to protect the wearer from unintentional laser reflections.
- Goggles are marked with the wavelength range over which protection is afforded and the minimum optical density within that range.
- Laser Barriers and Blackout Materials can prevent direct or reflected light from leaving the experimental setup area.
- Thorlabs' Enclosure Systems can be used to contain optical setups to isolate or minimize laser hazards.
- A fiber-pigtailed laser should always be turned off before connecting it to or disconnecting it from another fiber, especially when the laser is at power levels above 10 mW.
- All beams should be terminated at the edge of the table, and laboratory doors should be closed whenever a laser is in use.
- Do not place laser beams at eye level.
- Carry out experiments on an optical table such that all laser beams travel horizontally.
- Remove unnecessary reflective items such as reflective jewelry (e.g., rings, watches, etc.) while working near the beam path.
- Be aware that lenses and other optical devices may reflect a portion of the incident beam from the front or rear surface.
- Operate a laser at the minimum power necessary for any operation.
- If possible, reduce the output power of a laser during alignment procedures.
- Use beam shutters and filters to reduce the beam power.
- Post appropriate warning signs or labels near laser setups or rooms.
- Use laser sign lightboxes if operating Class 3R or 4 lasers (i.e., lasers requiring the use of a safety interlock).
- Do not use Laser Viewing Cards in place of a proper Laser Barrier or Beam Trap.

Laser Classification

Lasers are categorized into different classes according to their ability to cause eye and other damage. The International Electrotechnical Commission (IEC) is a global organization that prepares and publishes international standards for all electrical, electronic, and related technologies. The IEC document 60825-1 outlines the safety of laser products. A description of each class of laser is given below:

Class	Description	Warning Label
1	This class of laser is safe under all conditions of normal use, including use with optical instruments for intrabeam viewing. Lasers in this class do not emit radiation at levels that may cause injury during normal operation, and therefore the maximum permissible exposure (MPE) cannot be exceeded. Class 1 lasers can also include enclosed, high-power lasers where exposure to the radiation is not possible without opening or shutting down the laser.	
1M	Class 1M lasers are safe except when used in conjunction with optical components such as telescopes and microscopes. Lasers belonging to this class emit large-diameter or divergent beams, and the MPE cannot normally be exceeded unless focusing or imaging optics are used to narrow the beam. However, if the beam is refocused, the hazard may be increased and the class may be changed accordingly.	
	Class 2 lasers, which are limited to 1 mW of visible continuous-wave radiation, are safe because the blink reflex will limit the	

2	exposure in the eye to 0.25 seconds. This category only applies to visible radiation (400 - 700 nm).	
2M	Because of the blink reflex, this class of laser is classified as safe as long as the beam is not viewed through optical instruments. This laser class also applies to larger-diameter or diverging laser beams.	
3R	Lasers in this class are considered safe as long as they are handled with restricted beam viewing. The MPE can be exceeded with this class of laser, however, this presents a low risk level to injury. Visible, continuous-wave lasers are limited to 5 mW of output power in this class.	
3B	Class 3B lasers are hazardous to the eye if exposed directly. However, diffuse reflections are not harmful. Safe handling of devices in this class includes wearing protective eyewear where direct viewing of the laser beam may occur. In addition, laser safety signs lightboxes should be used with lasers that require a safety interlock so that the laser cannot be used without the safety light turning on. Class-3B lasers must be equipped with a key switch and a safety interlock.	
4	This class of laser may cause damage to the skin, and also to the eye, even from the viewing of diffuse reflections. These hazards may also apply to indirect or non-specular reflections of the beam, even from apparently matte surfaces. Great care must be taken when handling these lasers. They also represent a fire risk, because they may ignite combustible material. Class 4 lasers must be equipped with a key switch and a safety interlock.	
All class 2 lasers (and higher) must display, in addition to the corresponding sign above, this triangular warning sign		

Hide 705 - 730 nm

705 - 730 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LP705-SF15		705	15	55 mA / 80 mA	Ø5.6 mm, SM Pigtail	C	Yes	S7060R[c]	Yes	Single Mode
HL7001MG		705	40	75 mA / 100 mA	Ø5.6 mm	C	Yes	S7060R	No	Single Mode
HL7302MG		730	40	75 mA / 100 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. This socket is included with the purchase of the corresponding laser diode.

Part Number	Description	Price	Availability
LP705-SF15	**705 nm, 15 mw, C Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC**	**$1,095.00**	**3-5 Days**
LP705-SF15	**CWL = 703.9 nm, P = 15.0 mW (I = 59 mA), 25 °C**	**$1,095.00**	**3-5 Days**
LP705-SF15	**CWL = 700.0 nm, P = 15.0 mW (I = 61 mA), 25 °C**	**$1,095.00**	**Today**
HL7001MG	**Customer Inspired!705 nm, 40 mW, Ø5.6 mm, C Pin Code, Opnext Laser Diode**	**$530.00 Volume Pricing Available**	**Today**
HL7302MG	**730 nm, 40 mW, Ø5.6 mm, A Pin Code, Opnext Diode**	**$620.00 Volume Pricing Available**	**Today**

Hide 780 - 785 nm

780 - 785 nm

Note: The rows shaded green below denote single-frequency laser diodes.

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
L780P010		780	10	24 mA / 40 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
LP780-SAD15		780	15	180 mA (Max)	Ø9 mm, SM Pigtail	B	Yes	S8060 or S8060-4	Yes	Single Mode[c]
L785P5		785	5	28 mA / 40 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode

LPS-PM785-FC		785	6.25	65 mA / 90 mA	Ø5.6 mm, PM Pigtail[d]	A	Yes	S7060R[e]	Yes	Single Mode
LPS-785-FC		785	10	65 mA / 90 mA	Ø5.6 mm, SM Pigtail	A	Yes	S7060R[e]	Yes	Single Mode
LP785-SF20		785	20	85 mA / 120 mA	Ø5.6 mm, SM Pigtail	A	Yes	S7060R[e]	Yes	Single Mode
DBR785S		785	22	230 mA / 250 mA	SM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
DBR785P		785	22	230 mA / 250 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
L785P25		785	25	45 mA / 60 mA	Ø5.6 mm	B	Yes	S7060R	No	Single Mode
LP785-SAV50		785	50	500 mA (Max)	Ø9 mm, SM Pigtail	E	No	S8060 or S8060-4	Yes	Single Mode[c]
L785P090		785	90	120 mA / 160 mA	Ø5.6 mm	C	Yes	S7060R	No	Single Mode
LP785-SF100		785	100	300 mA / 450 mA	Ø9 mm, SM Pigtail	H	No	S8060 or S8060-4	Yes	Single Mode
FPL785S-250		785	250 (Min)	500 mA / 550 mA[f]	SM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode
FPL785P-200		785	200	450 mA / 500 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode
LD785-SEV300[g]		785	300	500 mA (Max)[h]	Ø9 mm[i]	E	No	S8060 or S8060-4	Yes	Single Mode[c]
LD785-SH300		785	300	400 mA / 450 mA	Ø9 mm	H	Yes	S8060 or S8060-4	No	Single Mode
FPL785C		785	300	400 mA / 450 mA	3 mm x 5 mm Submount	See Spec Sheet	No	-	No	Single Mode
FPL785CM		785	300	400 mA / 450 mA	C-Mount	See Spec Sheet	No	-	No	Single Mode
LD785-SE400		785	400	550 mA / 600 mA	Ø9 mm	E	No	S8060 or S8060-4	Yes	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. Single Mode in Both Transverse and Longitudinal Modes
d. The slow axis of the polarization-maintaining fiber is aligned to the connector key.
e. This socket is included with the purchase of the corresponding laser diode.
f. Some FPL785S-250 lasers will produce an output power higher than the 300 mW maximum when driven with a 550 mA current. Do not drive the laser diode with a current that will cause the output power to exceed the specified maximum power rating. Operating in this regime can cause damage to the device.
g. In order to achieve the specified performance, we recommend using the TCLDM9 Laser Diode Mount and, when collimated, an NIR Optical Isolator; single frequency performance when collimated is only guaranteed with >35 dB isolation of back reflections. This volume holographic grating (VHG) laser diode is also available in an SM pigtail package.
h. The power can be tuned across the operating current range, given in the serial-number-specific documentation, while maintaining wavelength-stabilized, single-frequency performance within a stabilized temperature range.
i. The Ø9 mm package for the LD785-SEV300 is 4.30 mm (0.17") thick, which is more than the standard Ø9 mm package thickness of 1.50 mm (0.06"). The diode will still be compatible with all Ø9 mm laser diode mounts; please see the *Drawing* tab in the blue info icon ( ) above for full package specifications. Mounting this diode in the TCLDM9 requires two 2-56 screws, included with this diode.

Part Number	Description	Price	Availability
L780P010	**780 nm, 10 mW, Ø5.6 mm, A Pin Code, Laser Diode**	**$22.60 Volume Pricing Available**	**Today**
LP780-	**780 nm, 15 mW, TO Can DFB Laser, SM Fiber, Internal Isolator, FC/APC**	**$3,500.00**	**Today**

SAD15			
LP780-SAD15	CWL = 779.6 nm, P = 20.3 mW (I = 120 mA),25 °C	$3,500.00	Today
L785P5	785 nm, 5 mW, Ø5.6 mm, A Pin Code, Laser Diode	$10.62 Volume Pricing Available	Today
LPS-PM785-FC	785 nm, 6.25 mW, A Pin Code, PM Fiber-Pigtailed Laser Diode, FC/PC	$822.80	Today
LPS-PM785-FC	CWL = 778.0 nm, P = 6.5 mW (I = 41 mA), 25 °C	$822.80	3-5 Days
LPS-PM785-FC	CWL = 776.8 nm, P = 6.5 mW (I = 43 mA), 25 °C	$822.80	Today
LPS-PM785-FC	CWL = 776.9 nm, P = 6.5 mW (I = 45 mA), 25 °C	$822.80	Today
LPS-785-FC	785 nm, 10 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$419.00	Today
LPS-785-FC	CWL = 778.4 nm, P = 10.0 mW (I = 54 mA), 25 °C	$419.00	3-5 Days
LPS-785-FC	CWL = 777.1 nm, P = 10.0 mW (I = 51 mA), 25 °C	$419.00	3-5 Days
LPS-785-FC	CWL = 776.3 nm, P = 10.0 mW (I = 51 mA), 25 °C	$419.00	Today
LPS-785-FC	CWL = 777.4 nm, P = 10.0 mW (I = 58 mA), 25 °C	$419.00	Today
LP785-SF20	785 nm, 20 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$485.00	Today
LP785-SF20	CWL = 786.9 nm, P = 20.0 mW (I = 61 mA), 25 °C	$485.00	3-5 Days
LP785-SF20	CWL = 786.9 nm, P = 20.0 mW (I = 79 mA), 25 °C	$485.00	3-5 Days
LP785-SF20		$485.00	3-5 Days
LP785-SF20	CWL = 786.8 nm, P = 20.0 mW (I = 68 mA), 25 °C	$485.00	3-5 Days
LP785-SF20	CWL = 786.3 nm, P = 20.0 mW (I = 63 mA), 25 °C	$485.00	Today
LP785-SF20	CWL = 786.5 nm, P = 20.0 mW (I = 60 mA), 25 °C	$485.00	Today
LP785-SF20	CWL = 785.8 nm, P = 20.0 mW (I = 63 mA), 25 °C	$485.00	Today
DBR785S	785 nm, 20 mW, Butterfly DBR Laser, SM Fiber, FC/APC, Internal Isolator	$3,875.00	Today
DBR785S	CWL = 785.6 nm, P = 28.5 mW (I = 230 mA),25 °C	$3,875.00	Today
DBR785P	785 nm, 20 mW, Butterfly DBR Laser, PM Fiber, FC/APC, Internal Isolator	$3,950.00	Today
DBR785P	CWL = 785.8 nm, P = 25.3 mW (I = 230 mA),25 °C	$3,950.00	Today
DBR785P	CWL = 785.6 nm, P = 22.9 mW (I = 230 mA),25 °C	$3,950.00	Today
L785P25	785 nm, 25 mW, Ø5.6 mm, B Pin Code, Laser Diode	$35.77 Volume Pricing Available	Today
LP785-SAV50	785 nm, 50 mW, E Pin Code, SM Fiber, FC/APC, VHG Wavelength-Stabilized SF Laser Diode, Internal Isolator	$1,990.00	Lead Time
L785P090	785 nm, 90 mW, Ø5.6 mm, C Pin Code, Laser Diode	$41.45	Today
LP785-SF100	785 nm, 100 mW, H Pin Code, SM Fiber Pigtailed Laser Diode, FC/PC	$949.00	Today
LP785-SF100	CWL = 786.3 nm, P = 100.0 mW (I = 314 mA), 25 °C	$949.00	3-5 Days
LP785-SF100	CWL = 788.1 nm, P = 100.0 mW (I = 386 mA), 25 °C	$949.00	Today
FPL785S-250	785 nm, 250 mW (Min), Butterfly Laser Diode, SM Fiber, FC/APC	$1,790.00	Today
FPL785S-250	CWL = 783.3 nm, P = 250.0 mW (I = 453 mA), 25 °C	$1,790.00	3-5 Days
FPL785S-250	CWL = 785.9 nm, P = 250.0 mW (I = 486 mA), 25 °C	$1,790.00	3-5 Days
FPL785S-250	CWL = 784.7 nm, P = 250.0 mW (I = 529 mA), 25 °C	$1,790.00	Today
FPL785S-	CWL = 782.5 nm, P = 250.0 mW (I = 471 mA), 25 °C	$1,790.00	Today

250			
FPL785S-250	CWL = 784.1 nm, P = 250.0 mW (I = 474 mA), 25 °C	$1,790.00	Today
FPL785P-200	785 nm, 200 mW, Butterfly Laser Diode, PM Fiber, FC/APC	$1,790.00	Today
FPL785P-200	CWL = 785.5 nm, P = 200.0 mW (I = 419 mA), 25 °C	$1,790.00	3-5 Days
FPL785P-200	CWL = 785.7 nm, P = 200.0 mW (I = 445 mA), 25 °C	$1,790.00	3-5 Days
FPL785P-200	CWL = 784.7 nm, P = 200.0 mW (I = 412 mA), 25 °C	$1,790.00	Today
FPL785P-200	CWL = 782.8 nm, P = 200.0 mW (I = 432 mA), 25 °C	$1,790.00	Today
FPL785P-200	CWL = 782.6 nm, P = 200.0 mW (I = 428 mA), 25 °C	$1,790.00	Today
FPL785P-200	CWL = 784.6 nm, P = 200.0 mW (I = 401 mA), 25 °C	$1,790.00	Today
FPL785P-200	CWL = 785.2 nm, P = 200.0 mW (I = 437 mA), 25 °C	$1,790.00	Today
LD785-SEV300	Customer Inspired!785 nm, 300 mW, E Pin Code, Ø9 mm TO Can, VHG Wavelength-Stabilized Single-Frequency Laser Diode	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 785.0 nm, P = 270.6 mW (I = 400 mA),27 °C	$1,350.00	3-5 Days
LD785-SEV300	Customer Inspired!CWL = 785.0 nm, P = 275.5 mW (I = 400 mA),27 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 785.1 nm, P = 301.0 mW (I = 400 mA),20 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 785.1 nm, P = 290.2 mW (I = 400 mA),20 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 785.5 nm, P = 287.1 mW (I = 400 mA),27 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 784.6 nm, P = 285.1 mW (I = 400 mA),20 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 784.6 nm, P = 283.3 mW (I = 400 mA),20 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 784.7 nm, P = 287.6 mW (I = 400 mA),20 °C	$1,350.00	Today
LD785-SEV300	Customer Inspired!CWL = 784.7 nm, P = 253.2 mW (I = 400 mA),20 °C	$1,350.00	Today
LD785-SH300	785 nm, 300 mW, Ø9 mm, H Pin Code, Laser Diode	$450.00	Today
LD785-SH300	CWL = 786.6 nm, P = 300.0 mW (I = 407 mA), 25 °C	$450.00	3-5 Days
LD785-SH300	CWL = 787.1 nm, P = 300.0 mW (I = 388 mA), 25 °C	$450.00	3-5 Days
LD785-SH300	CWL = 786.8 nm, P = 300.0 mW (I = 407 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 788.0 nm, P = 300.0 mW (I = 400 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.2 nm, P = 300.0 mW (I = 414 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.3 nm, P = 300.0 mW (I = 419 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.9 nm, P = 300.0 mW (I = 390 mA), 25 °C	$450.00	Today
LD785-			

SH300	CWL = 786.7 nm, P = 300.0 mW (I = 453 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.4 nm, P = 300.0 mW (I = 403 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.9 nm, P = 300.0 mW (I = 415 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.5 nm, P = 300.0 mW (I = 403 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.6 nm, P = 300.0 mW (I = 376 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.9 nm, P = 300.0 mW (I = 384 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.9 nm, P = 300.0 mW (I = 393 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.1 nm, P = 300.0 mW (I = 383 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.3 nm, P = 300.0 mW (I = 386 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.3 nm, P = 300.0 mW (I = 387 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 785.7 nm, P = 300.0 mW (I = 391 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.9 nm, P = 300.0 mW (I = 391 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.1 nm, P = 300.0 mW (I = 388 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.4 nm, P = 300.0 mW (I = 380 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.1 nm, P = 300.0 mW (I = 394 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.1 nm, P = 300.0 mW (I = 396 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.0 nm, P = 300.0 mW (I = 395 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.2 nm, P = 300.0 mW (I = 386 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.7 nm, P = 300.0 mW (I = 403 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.4 nm, P = 300.0 mW (I = 389 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.2 nm, P = 300.0 mW (I = 394 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 786.3 nm, P = 300.0 mW (I = 382 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 787.5 nm, P = 300.0 mW (I = 390 mA), 25 °C	$450.00	Today
LD785-SH300	CWL = 792.5 nm, P = 300.0 mW (I = 446 mA), 25 °C	$450.00	Today
FPL785C	785 nm, 300 mW, Chip on Submount, Laser Diode	$450.00	3-5 Days
FPL785CM	785 nm, 300 mW, One-Tab C-Mount, Laser Diode	$450.00	Today
LD785-SE400	785 nm, 400 mW, Ø9 mm, E Pin Code, Laser Diode	$600.00	Today
LD785-SE400	CWL = 789.6 nm, P = 400.0 mW (I = 580 mA), 25 °C	$600.00	3-5 Days
LD785-SE400	CWL = 787.2 nm, P = 400.0 mW (I = 549 mA), 25 °C	$600.00	3-5 Days

LD785-SE400	CWL = 787.0 nm, P = 400.0 mW (I = 534 mA), 25 °C	$600.00	3-5 Days
LD785-SE400	CWL = 789.9 nm, P = 400.0 mW (I = 542 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.0 nm, P = 400.0 mW (I = 555 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 788.0 nm, P = 400.0 mW (I = 543 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 787.6 nm, P = 400.0 mW (I = 557 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 788.9 nm, P = 400.0 mW (I = 535 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.5 nm, P = 400.0 mW (I = 558 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.9 nm, P = 400.0 mW (I = 555 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 788.1 nm, P = 400.0 mW (I = 541 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 789.0 nm, P = 400.0 mW (I = 565 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.2 nm, P = 400.0 mW (I = 560 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.8 nm, P = 400.0 mW (I = 546 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 786.3 nm, P = 400.0 mW (I = 587 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.1 nm, P = 400.0 mW (I = 568 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 785.1 nm, P = 400.0 mW (I = 568 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 787.4 nm, P = 400.0 mW (I = 547 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 787.4 nm, P = 400.0 mW (I = 547 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 789.4 nm, P = 400.0 mW (I = 541 mA), 25 °C	$600.00	Today
LD785-SE400	CWL = 788.8 nm, P = 400.0 mW (I = 548 mA), 25 °C	$600.00	Today

Hide 805 - 808 nm

805 - 808 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
ML620G40		805	500	650 mA / 850 mA	Ø5.6 mm	G	No	S7060R	No	Multimode
L808P010		808	10	50 mA / 70 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
LP808-SF30		808	30	110 mA / 150 mA	Ø5.6 mm, SM Pigtail	A	Yes	S7060R[c]	Yes	Single Mode
L808P030		808	30	65 mA / 95 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
LP808-SA40		808	40	140 mA / 200 mA	Ø9 mm SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
LD808-SA60		808	60	100 mA / 120 mA	Ø5.6 mm	A	Yes	S7060R	Yes[d]	Single Mode
LD808-SA100		808	100	145 mA / 160 mA	Ø9 mm	A	Yes	S8060 or S8060-4	Yes[d]	Single Mode

M9-808-0150		808	150	180 mA / 220 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
L808P200		808	200	260 mA / 300 mA	Ø5.6 mm	A	Yes	S7060R	No	Multimode
LD808-SE500		808	500	750 mA / 800 mA	Ø9 mm[e]	E	No	S8060 or S8060-4	Yes	Single Mode
L808P500MM		808	500	650 mA / 700 mA	Ø5.6 mm	A	Yes	S7060R	No	Multimode
L808P1000MM		808	1000	1100 mA / 1500 mA	Ø9 mm	E	No	S7060R	No	Multimode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. This socket is included with the purchase of the corresponding laser diode.
d. For the center wavelengths currently available or to place an order for a specific available wavelength, please contact Technical Support.
e. The Ø9 mm package for the LD808-SE500 is 4.30 mm (0.17") thick, which is more than the standard Ø9 mm package thickness of 1.50 mm (0.06"). The diode will still be compatible with all Ø9 mm laser diode mounts; please see the *Drawing* tab in the blue info icon ( ) above for full package specifications.
f. Mounting this diode in the TCLDM9 requires two 2-56 screws, included with this diode.

Part Number	Description	Price	Availability
ML620G40	805 nm, 500 mW, Ø5.6 mm, G Pin Code, MM, Mitsubishi Laser Diode	$370.00 Volume Pricing Available	Today
L808P010	808 nm, 10 mW, Ø5.6 mm, A Pin Code, Laser Diode	$20.00 Volume Pricing Available	Today
LP808-SF30	808 nm, 30 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$843.00	Today
LP808-SF30	CWL = 803.0 nm, P = 30.0 mW (I = 100 mA), 25 °C	$843.00	3-5 Days
LP808-SF30	CWL = 803.5 nm, P = 30.0 mW (I = 112 mA), 25 °C	$843.00	Today
LP808-SF30	CWL = 802.5 nm, P = 30.0 mW (I = 111 mA), 25 °C	$843.00	Today
L808P030	808 nm, 30 mW, Ø5.6 mm, A Pin Code, Laser Diode	$76.20 Volume Pricing Available	Today
LP808-SA40	808 nm, 40 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/APC	$949.00	Today
LP808-SA40	CWL = 800.8 nm, P = 40.0 mW (I = 106 mA), 25 °C	$949.00	Today
LD808-SA60	808 nm, 60 mW, Ø5.6 mm, A Pin Code, Laser Diode	$90.00	Today
LD808-SA100	808 nm, 100 mW, Ø9 mm, A Pin Code, Laser Diode	$170.00	Today
M9-808-0150	808 nm, 150 mW, Ø9 mm, A Pin Code, Laser Diode	$442.56 Volume Pricing Available	Today
L808P200	808 nm, 200 mW, Ø5.6 mm, A Pin Code, MM, Laser Diode	$62.70 Volume Pricing Available	Today
LD808-SE500	808 nm, 500 mW, Ø9 mm, E Pin Code, Laser Diode	$600.00	Today
LD808-SE500	CWL = 809.6 nm, P = 500.0 mW (I = 748.0 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 810.1 nm, P = 500.0 mW (I = 743.4 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 809.8 nm, P = 500.0 mW (I = 736.3 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 809.3 nm, P = 500.0 mW (I = 762 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 808.8 nm, P = 500.0 mW (I = 752 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 808.8 nm, P = 500.0 mW (I = 752 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 809.4 nm, P = 500.0 mW (I = 765 mA), 25 °C	$600.00	Today
LD808-SE500	CWL = 808.5 nm, P = 500.0 mW (I = 740 mA), 25 °C	$600.00	Today
L808P500MM	808 nm, 500 mW, Ø5.6 mm, A Pin Code, MM, Laser Diode	$55.00	Today
L808P1000MM	808 nm, 1000 mW, Ø9 mm, E Pin Code, MM, Laser Diode	$95.00	Today

830 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LPS-830-FC		830	10	50 mA / 80 mA	Ø5.6 mm, SM Pigtail	C	Yes	S7060R[c]	Yes	Single Mode
LPS-PM830-FC		830	10	120 mA (Typ.)	Ø5.6 mm, PM Pigtail[d]	C	Yes	S7060R[c]	Yes	Single Mode
LP830-SF30		830	30	115 mA / 160 mA	Ø9 mm, SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
HL8338MG		830	50	70 mA / 100 mA	Ø5.6 mm	C	Yes	S7060R	No	Single Mode
L830P200		830	200	210 mA / 230 mA	Ø5.6 mm	E	No	S7060R	No	Single Mode
LD830-MA1W		830	1000	1330 mA / 1450 mA	Ø9 mm	A	Yes	S8060 or S8060-4	Yes[e]	Multimode
LD830-ME2W		830	2000	3 A (Max)	Ø9 mm[f]	E	No	S8060 or S8060-4	Yes	Multimode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. This socket is included with the purchase of the corresponding laser diode.
d. The slow axis of the polarization-maintaining fiber is aligned to the connector key.
e. For the center wavelengths currently available or to place an order for a specific available wavelength, please contact Technical Support.
f. The Ø9 mm package for the LD830-ME2W is 4.30 mm (0.17") thick, which is more than the standard Ø9 mm package thickness of 1.50 mm (0.06"). The diode will still be compatible with all Ø9 mm laser diode mounts; please see the *Drawing* tab in the blue info icon ( ) above for full package specifications. Mounting this diode in the TCLDM9 requires two 2-56 screws, included with this diode.

Part Number	Description	Price	Availability
LPS-830-FC	830 nm, 10 mW, C Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$494.00	Today
LPS-830-FC	CWL = 826.2 nm, P = 10.0 mW (I = 56 mA), 25 °C	$494.00	3-5 Days
LPS-830-FC	CWL = 826.1 nm, P = 10.0 mW (I = 49 mA), 25 °C	$494.00	3-5 Days
LPS-830-FC	CWL = 827.3 nm, P = 10.0 mW (I = 43 mA), 25 °C	$494.00	Today
LPS-830-FC	CWL = 828.1 nm, P = 10.0 mW (I = 55 mA), 25 °C	$494.00	Today
LPS-830-FC	CWL = 829.0 nm, P = 10.0 mW (I = 47 mA), 25 °C	$494.00	Today
LPS-PM830-FC	830 nm, 10 mW, C Pin Code, PM Fiber-Pigtailed Laser Diode, FC/PC	$854.00	Today
LPS-PM830-FC	CWL = 828.6 nm, P = 10.0 mW (I = 44 mA), 25 °C	$854.00	3-5 Days
LPS-PM830-FC	CWL = 827.0 nm, P = 10.0 mW (I = 58 mA), 25 °C	$854.00	Today
LP830-SF30	830 nm, 30 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$843.00	Today
LP830-SF30	CWL = 826.0 nm, P = 30.0 mW (I = 88 mA), 25 °C	$843.00	3-5 Days
LP830-SF30	CWL = 825.5 nm, P = 30.0 mW (I = 108 mA), 25 °C	$843.00	Today
LP830-SF30	CWL = 824.7 nm, P = 30.0 mW (I = 115 mA), 25 °C	$843.00	Today
HL8338MG	830 nm, 50 mW, Ø5.6 mm, C Pin Code, Opnext Laser Diode	$96.55 Volume Pricing Available	Today
L830P200	830 nm, 200 mW, Ø5.6 mm, E Pin Code, Oclaro Diode	$243.55 Volume Pricing Available	Today
LD830-MA1W	830 nm, 1 W, Ø9 mm, A Pin Code, MM, Laser Diode	$250.00	Today
LD830-ME2W	830 nm, 2 W, Ø9 mm, E Pin Code, MM, Laser Diode	$500.00	Lead Time
LD830-ME2W	CWL = 830.4 nm, P = 2000.0 mW (I = 2624 mA), 25 °C	$500.00	Lead Time
LD830-ME2W	CWL = 833.2 nm, P = 2000.0 mW (I = 2672 mA), 25 °C	$500.00	Lead Time
LD830-ME2W	CWL = 831.0 nm, P = 2000.0 mW (I = 2602 mA), 25 °C	$500.00	Lead Time
LD830-ME2W	CWL = 831.7 nm, P = 2000.0 mW (I = 2695 mA), 25 °C	$500.00	Lead Time
LD830-ME2W	CWL = 835.6 nm, P = 2000.0 mW (I = 2908 mA), 25 °C	$500.00	Lead Time

Hide 850 - 852 nm

850 - 852 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
VCSEL-850		850	1.85	10 mA (Max)	TO-46	See Spec Sheet	Yes	-	No	Multimode
L850P010		850	10	50 mA / 70 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
L850P030		850	30	65 mA / 95 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
LP852-SF30		852	30	115 mA / 160 mA	Ø9 mm, SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
DBR852S		852	40	140 mA / 160 mA	SM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
DBR852P		852	40	140 mA / 160 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
L852P50		852	50	75 mA / 100 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
L852P100		852	100	120 mA / 170 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
L852P150		852	150	170 mA / 220 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in photodiode can operate at constant power.
c. Single Mode in Both Transverse and Longitudinal Modes

Part Number	Description	Price	Availability
VCSEL-850	850 nm, 1.85 mW, TO-46, MM, VCSEL Laser Diode	$29.80 Volume Pricing Available	3-5 Days
L850P010	850 nm, 10 mW, Ø5.6 mm, A Pin Code, Laser Diode	$22.60 Volume Pricing Available	Today
L850P030	850 nm, 30 mW, Ø5.6 mm, A Pin Code, Laser Diode	$85.00 Volume Pricing Available	Today
LP852-SF30	852 nm, 30 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$790.00	3-5 Days
LP852-SF30	CWL = 850.1 nm, P = 30.0 mW (I = 102 mA), 25 °C	$790.00	3-5 Days
LP852-SF30	CWL = 848.5 nm, P = 30.0 mW (I = 111 mA), 25 °C	$790.00	3-5 Days
LP852-SF30	CWL = 853.9 nm, P = 30.0 mW (I = 96 mA), 25 °C	$790.00	3-5 Days
LP852-SF30	CWL = 851.9 nm, P = 30.0 mW (I = 101 mA), 25 °C	$790.00	3-5 Days
LP852-SF30	CWL = 850.1 nm, P = 30.0 mW (I = 137 mA), 25 °C	$790.00	Today
LP852-SF30	CWL = 851.8 nm, P = 30.0 mW (I = 129 mA), 25 °C	$790.00	Today
LP852-SF30	CWL = 848.7 nm, P = 30.0 mW (I = 109 mA), 25 °C	$790.00	Today
LP852-SF30	CWL = 846.8 nm, P = 30.0 mW (I = 111 mA), 25 °C	$790.00	Today
DBR852S	852 nm, 35 mW, Butterfly DBR Laser, SM Fiber, FC/APC	$3,665.00	Today
DBR852P	852 nm, 35 mW, Butterfly DBR Laser, PM Fiber, FC/APC	$3,740.00	Today
DBR852P	CWL = 852.6 nm, P = 44.6 mW (I = 140 mA),25 °C	$3,740.00	Today
L852P50	852 nm, 50 mW, Ø5.6 mm, A Pin Code, Oclaro Laser Diode	$157.79 Volume Pricing Available	Today
L852P100	852 nm, 100 mW, Ø9 mm, A Pin Code, Laser Diode	$187.73 Volume Pricing Available	Today
L852P150	852 nm, 150 mW, Ø9 mm, A Pin Code, Laser Diode	$276.64 Volume Pricing Available	Today

VCSEL-850 - 850 nm, 1.85 mW, TO-46, VCSEL Laser Diode

Specifications | Drawings

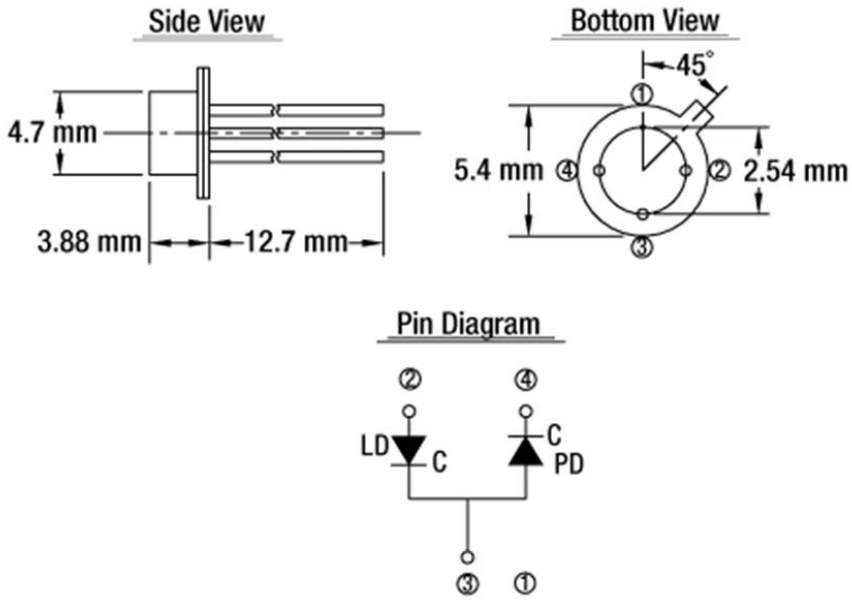
Optical Electrical Characteristics (T_{CASE} = 25 °C, P = 1.85 mW)				
Characteristic	**MIN**	**TYP**	**MAX**	**UNIT**
Peak Wavelength	830	845	860	nm
Spectral Bandwidth (RMS)	-	-	0.85	nm
Optical Output Power (CW)	-	1.85	-	mW
Forward Voltage	1.7	1.9	2.2	V
Beam Divergence (FWHM) - Parallel	-	25	30	deg.
Beam Divergence (FWHM) - Perpendicular	-	25	30	deg.
Threshold Current	-	2.2	3	mA
Monitor Current	100	-	-	µA
Slope Efficiency	0.12	0.32	0.4	W/A

Absolute Maximum Ratings[a]		
Characteristic		
LD Reverse Voltage	5	V
Operating Current	10	mA
Operating Temperature	0 to 85	°C
Storage Temperature	-40 to 100	°C

a. Absolute Maximum Rating specifications should never be exceeded. Operating beyond these conditions can seriously damage the laser. For more information, please see the Laser Diode Tutorial.

VCSEL-850 - 850 nm, 1.85 mW, TO-46, VCSEL Laser Diode

Specifications | Drawings



VCSEL-850 - 850 nm, 1.85 mW, TO-46, VCSEL Laser Diode

880 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LP880-SF3		880	3	25 mA / 40 mA	Ø5.6 mm, SM Pigtail	A	Yes	S7060R[c]	Yes	Single Mode
L880P010		880	10	30 mA / 40 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. This socket is included with the purchase of the corresponding laser diode.

Part Number	Description	Price	Availability
LP880-SF3	880 nm, 3 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$455.00	Today
LP880-SF3	CWL = 876.5 nm, P = 3.0 mW (I = 28 mA), 25 °C	$455.00	Today
LP880-SF3	CWL = 877.0 nm, P = 3.0 mW (I = 25 mA), 25 °C	$455.00	Today
L880P010	880 nm, 10 mW, Ø5.6 mm, A Pin Code, Laser Diode	$47.94 Volume Pricing Available	Today

Hide 904 - 905 nm

904 - 905 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
L904P010		904	10	50 mA / 70 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
M5-905-0100		905	100	140 mA / 170 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.

Part Number	Description	Price	Availability
L904P010	904 nm, 10 mW, Ø5.6 mm, A Pin Code, Laser Diode	$25.00 Volume Pricing Available	Today
M5-905-0100	905 nm, 100 mW, Ø5.6 mm, A Pin Code, Laser Diode	$297.28 Volume Pricing Available	Today

Hide 915 nm

915 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LP915-SF40		915	40	130 mA / 200 mA	Ø9 mm SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
M9-915-0200		915	200	260 mA / 300 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
M9-915-0300		915	300	370 mA / 420 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.

Part Number	Description	Price	Availability
LP915-SF40	915 nm, 40 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$849.00	Today
LP915-SF40	CWL = 910.0 nm, P = 40.0 mW (I = 125 mA), 25 °C	$849.00	Today
M9-915-0200	915 nm, 200 mW, Ø9 mm, A Pin Code, Laser Diode	$697.74 Volume Pricing Available	Today
		$1,056.34	

M9-915-0300	**915 nm, 300 mW, Ø9 mm, A Pin Code, Laser Diode**	**Volume Pricing Available**	**Today**

Hide 940 nm

940 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LP940-SF30		940	30	90 mA / 120 mA	Ø9 mm, SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
M9-940-0100		940	100	140 mA / 180 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
M9-940-0200		940	200	270 mA / 320 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
M9-940-0300		940	300	400 mA / 450 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.

Part Number	Description	Price	Availability
LP940-SF30	**940 nm, 30 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC**	**$690.00**	**Today**
LP940-SF30	**CWL = 942.1 nm, P = 30.0 mW (I = 112 mA), 25 °C**	**$690.00**	**3-5 Days**
LP940-SF30	**CWL = 942.6 nm, P = 30.0 mW (I = 96 mA), 25 °C**	**$690.00**	**3-5 Days**
LP940-SF30	**CWL = 943.4 nm, P = 30.0 mW (I = 106 mA), 25 °C**	**$690.00**	**Today**
LP940-SF30	**CWL = 944.0 nm, P = 30.0 mW (I = 99 mA), 25 °C**	**$690.00**	**Today**
M9-940-0100	**940 nm, 100 mW, Ø9 mm, A Pin Code, Axcel Laser Diode**	**$297.52 Volume Pricing Available**	**Today**
M9-940-0200	**940 nm, 200 mW, Ø9 mm, A Pin Code, Axcel Laser Diode**	**$566.76 Volume Pricing Available**	**Today**
M9-940-0300	**940 nm, 300 mW, Ø9 mm, A Pin Code, Axcel Laser Diode**	**$850.00 Volume Pricing Available**	**3-5 Days**

Hide 975 - 976 nm

975 - 976 nm

Note: The rows shaded green below denote single-frequency laser diodes.

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
DBR976S		976	45	150 mA / 200 mA	SM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
DBR976P		976	45	150 mA / 200 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
BL976-SAG300		976	300	470 mA / 515 mA	SM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode
BL976-PAG500		976	500	830 mA / 920 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode
BL976-PAG700		976	700	1090 mA / 1150 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode
BL976-PAG900		976	900	1480 mA / 1630 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode
L975P1WJ		975	1000	1500 mA / 1800 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Multimode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. Single Mode in Both Transverse and Longitudinal Modes

Part Number	Description	Price	Availability
DBR976S	976 nm, 35 mW, Butterfly DBR Laser, SM Fiber, FC/APC	$3,535.00	Today
DBR976S	CWL = 975.8 nm, P = 41.4 mW (I = 150 mA),25 °C	$3,535.00	Today
DBR976S	CWL = 975.8 nm, P = 49.7 mW (I = 150 mA),25 °C	$3,535.00	Today
DBR976P	976 nm, 35 mW, Butterfly DBR Laser, PM Fiber, FC/APC	$3,615.00	Lead Time
BL976-SAG300	976 nm, 300 mW, Butterfly FBG-Stabilized Laser, SM Fiber, FC/APC	$660.00 Volume Pricing Available	Today
BL976-PAG500	976 nm, 500 mW, Butterfly FBG-Stabilized Laser, PM Fiber, FC/APC	$1,380.00	Today
BL976-PAG700	976 nm, 700 mW, Butterfly FBG-Stabilized Laser, PM Fiber, FC/APC	$1,630.00	Today
BL976-PAG900	976 nm, 900 mW, Butterfly FBG-Stabilized Laser, PM Fiber, FC/APC	$2,090.00	Today
L975P1WJ	975 nm, 1000 mW, Ø9 mm, A Pin Code, MM, Laser Diode	$388.90 Volume Pricing Available	Today

Hide 980 nm

980 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
L980P010		980	10	25 mA / 40 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
LP980-SF15		980	15	70 mA / 90 mA	Ø5.6 mm, SM Pigtail	A	Yes	S7060R[c]	Yes	Single Mode
L980P030		980	30	100 mA / 150 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
L9805E2P5		980	50	95 mA / 120 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode
LP980-SA80		980	80	220 mA / 300 mA	Ø9 mm, SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
L980P100A		980	100	150 mA / 190 mA	Ø5.6 mm	A	Yes	S7060R	No	Multimode
L980P200		980	200	300 mA / 400 mA	Ø5.6 mm	A	Yes	S7060R	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. This socket is included with the purchase of the corresponding laser diode.

Part Number	Description	Price	Availability
L980P010	980 nm, 10 mW, Ø5.6 mm, A Pin Code, Laser Diode	$26.20 Volume Pricing Available	Today
LP980-SF15	980 nm, 15 mW, E Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$445.00	3-5 Days
L980P030	980 nm, 30 mW, Ø5.6 mm, A Pin Code, Laser Diode	$64.75 Volume Pricing Available	Today
L9805E2P5	980 nm, 50 mW, Ø5.6 mm, A Pin Code, Laser Diode	$73.20 Volume Pricing Available	Today
LP980-SA80	980 nm, 80 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/APC	$595.00	3-5 Days
L980P100A	980 nm, 100 mW, Ø5.6 mm, A Pin Code, MM, Laser Diode	$102.10 Volume Pricing Available	Today
L980P200	980 nm, 200 mW, Ø5.6 mm, A Pin Code, Laser Diode	$187.79 Volume Pricing Available	Today

Hide 1060 - 1064 nm

1060 - 1064 nm

Note: The rows shaded green below denote single-frequency laser diodes.

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
L1060P200J		1060	200	280 mA / 320 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
DBR1064S		1064	20 (Min)	150 mA / 200 mA	SM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
DBR1064P		1064	20 (Min)	150 mA / 200 mA	PM Butterfly	14-Pin Butterfly	Yes	-	Yes	Single Mode[c]
LPS-1060-FC		1064	50	220 mA / 300 mA	Ø9 mm, SM Pigtail	A	Yes	S8060 or S8060-4	Yes	Single Mode
M9-A64-0200		1064	200	280 mA / 350 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode
M9-A64-0300		1064	300	390 mA / 480 mA	Ø9 mm	A	Yes	S8060 or S8060-4	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. Single Mode in Both Transverse and Longitudinal Modes

Part Number	Description	Price	Availability
L1060P200J	1060 nm, 200 mW, Ø9 mm, A Pin Code, Laser Diode	$669.00 Volume Pricing Available	Today
DBR1064S	1064 nm, 20 mW, Butterfly DBR Laser, SM Fiber, FC/APC, Internal Isolator	$3,750.00	Today
DBR1064S	CWL = 1064.5 nm, P = 34.0 mW (I = 150 mA),25 °C	$3,750.00	Today
DBR1064S	CWL = 1064.6 nm, P = 32.7 mW (I = 150 mA),25 °C	$3,750.00	Today
DBR1064P	1064 nm, 20 mW, Butterfly DBR Laser, PM Fiber, FC/APC, Internal Isolator	$3,825.00	Lead Time
DBR1064P	CWL = 1064.2 nm, P = 33.9 mW (I = 150 mA),25 °C	$3,825.00	Lead Time
LPS-1060-FC	1064 nm, 50 mW, A Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$1,200.00	3-5 Days
LPS-1060-FC	CWL = 1058.6 nm, P = 50.0 mW (I = 182 mA), 25 °C	$1,200.00	Today
LPS-1060-FC	CWL = 1058.3 nm, P = 50.0 mW (I = 179 mA), 25 °C	$1,200.00	Today
M9-A64-0200	1064 nm, 200 mW, Ø9 mm, A Pin Code, Laser Diode	$409.20 Volume Pricing Available	Today
M9-A64-0300	1064 nm, 300 mW, Ø9 mm, A Pin Code, Laser Diode	$595.80 Volume Pricing Available	Today

Hide 1208 nm

1208 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
BAL1112CM		1208	3000	5000 mA / 7000 mA	C-Mount	See Spec Sheet	No	-	No	Multimode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.

Part Number	Description	Price	Availability
BAL1112CM	Customer Inspired!1208 nm, 3000 mW, One-Tab C-Mount, MM, Laser Diode	$650.00	3-5 Days

Hide 1310 nm

1310 nm

Note: The row shaded green below denote single-frequency laser diodes.

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LP1310-SAD2		1310	2	13 mA / 40 mA	Ø5.6 mm, SM Pigtail	D	Yes	-	Yes	Single Mode[c]
LPS-1310-FC		1310	2.5	20 mA / 35 mA	Ø5.6 mm, SM Pigtail	D	Yes	-	Yes	Single Mode
LPS-PM1310-FC		1310	2.5	20 mA / 35 mA	Ø5.6 mm, PM Pigtail[d]	D	Yes	-	Yes	Single Mode
L1310P5DFB		1310	5	20 mA / 40 mA	Ø5.6 mm	D	Yes	-	Yes	Single Mode[c]
ML725B8F		1310	5	20 mA / 35 mA	Ø5.6 mm	D	Yes	-	Yes[e]	Single Mode
LPSC-1310-FC		1310	50	350 mA / 500 mA	Ø5.6 mm, SM Pigtail	E	No	S7060R	Yes	Single Mode
FPL1053S		1310	130	400 mA / 500 mA	SM Butterfly	14-Pin Butterfly	No	-	Yes[e]	Single Mode
FPL1053P		1310	130	400 mA / 500 mA	PM Butterfly	14-Pin Butterfly	No	-	Yes[e]	Single Mode
FPL1053T[f]		1310	300 (Pulsed)	750 mA / 1000 mA	Ø5.6 mm	E	No	S7060R	No	Single Mode
FPL1053C		1310	300 (Pulsed)	750 mA / 1000 mA	Chip on Submount	See Spec Sheet	No	-	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. Single Mode in Both Transverse and Longitudinal Modes
d. The slow axis of the polarization-maintaining fiber is aligned to the connector key.
e. For the center wavelengths currently available or to place an order for a specific available wavelength, please contact Tech Support.
f. This diode is available from stock in an open header package. It can be converted to a sealed TO can package by customer request. Please contact Tech Support for details.

Part Number	Description	Price	Availability
LP1310-SAD2	1310 nm, 2 mW, TO Can DFB Laser, SM Fiber, Internal Isolator, FC/APC	$637.00	Today
LP1310-SAD2	CWL = 1311.3 nm, P = 2.0 mW (I = 14 mA), 25 °C	$637.00	Today
LP1310-SAD2	CWL = 1310.6 nm, P = 2.0 mW (I = 14 mA), 25 °C	$637.00	Today
LPS-1310-FC	1310 nm, 2.5 mW, D Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$446.00	Today
LPS-1310-FC	CWL = 1313.1 nm, P = 2.5 mW (I = 21 mA), 25 °C	$446.00	Today
LPS-1310-FC	CWL = 1311.2 nm, P = 2.5 mW (I = 27 mA), 25 °C	$446.00	3-5 Days
LPS-1310-FC	CWL = 1310.2 nm, P = 2.5 mW (I = 21 mA), 25 °C	$446.00	Today
LPS-1310-FC	CWL = 1310.3 nm, P = 2.5 mW (I = 22 mA), 25 °C	$446.00	Today
LPS-PM1310-FC	1310 nm, 2.5 mW, D Pin Code, PM Fiber-Pigtailed Laser Diode, FC/PC	$804.40	Today
LPS-PM1310-FC	CWL = 1309.2 nm, P = 2.5 mW (I = 20 mA), 25 °C	$804.40	3-5 Days
LPS-PM1310-FC	CWL = 1311.3 nm, P = 2.5 mW (I = 20 mA), 25 °C	$804.40	Today
L1310P5DFB	1310 nm, 5 mW, Ø5.6 mm, D Pin Code, DFB Laser Diode with Aspheric Lens Cap	$76.00 Volume Pricing Available	Today
ML725B8F	1310 nm, 5 mW, Ø5.6 mm, D Pin Code, Mitsubishi Laser Diode	$47.40 Volume Pricing Available	Today
LPSC-1310-FC	1310 nm, 50 mW, E Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$621.00	Today
LPSC-1310-FC		$621.00	3-5 Days
LPSC-1310-FC	CWL = 1313.7 nm, P = 50.0 mW (I = 237 mA), 25 °C	$621.00	3-5 Days

LPSC-1310-FC		$621.00	Today
FPL1053S	1310 nm, 130 mW, Butterfly Laser Diode, SM Fiber, FC/APC	$1,270.00	Today
FPL1053P	1310 nm, 130 mW, Butterfly Laser Diode, PM Fiber, FC/APC	$1,402.50	Today
FPL1053T	1310 nm, 300 mW Pulsed, Ø5.6 mm, E Pin Code	$350.00	Today
FPL1053C	1310 nm, 300 mW Pulsed, Chip on Submount, Laser Diode	$250.00	Today

Hide 1550 nm

1550 nm

Note: The rows shaded green below denote single-frequency laser diodes.

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
LPS-1550-FC		1550	1.5	30 mA / 50 mA	Ø5.6 mm, SM Pigtail	D	Yes	-	Yes	Single Mode
LPS-PM1550-FC		1550	1.5	30 mA / 50 mA	Ø5.6 mm, PM Pigtail[c]	D	Yes	-	Yes	Single Mode
LP1550-SAD2		1550	2	20 mA / 40 mA	Ø5.6 mm, SM Pigtail	D	Yes	-	Yes	Single Mode[d]
L1550P5DFB		1550	5	20 mA / 40 mA	Ø5.6 mm	D	Yes	-	Yes	Single Mode[d]
ML925B45F		1550	5	30 mA / 50 mA	Ø5.6 mm	D	Yes	-	No	Single Mode
SFL1550S		1550	40	300 mA (Typ.)	SM Butterfly	14-Pin Butterfly	No	-	Yes[e]	Single Mode[d]
SFL1550P		1550	40	300 mA (Typ.)	PM Butterfly[c]	14-Pin Butterfly	No	-	Yes[e]	Single Mode[d]
LPSC-1550-FC		1550	50	250 mA / 500 mA	Ø5.6 mm, SM Pigtail	E	No	S7060R	Yes	Single Mode
FPL1009S		1550	100[f]	400 mA / 500 mA	SM Butterfly	14-Pin Butterfly	No	-	Yes[e]	Single Mode
FPL1009P		1550	100[f]	400 mA / 500 mA	PM Butterfly[c]	14-Pin Butterfly	No	-	Yes[e]	Single Mode
FPL1001C		1550	150	400 mA / 500 mA	Chip on Submount	See Spec Sheet	No	-	No	Single Mode
FPL1055T[g]		1550	300 (Pulsed)	750 mA / 1000 mA	Ø5.6 mm	E	No	S7060R	No	Single Mode
FPL1055C		1550	300 (Pulsed)	750 mA / 1000 mA	Chip on Submount	See Spec Sheet	No	-	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. The slow axis of the polarization-maintaining fiber is aligned to the connector key.
d. Single-Frequency Diode with Single Mode in Both Transverse and Longitudinal Modes
e. For the center wavelengths currently available or to place an order for a specific available wavelength, please contact Technical Support.
f. Typical
g. This diode is available from stock in an open header package. It can be converted to a sealed TO can package by customer request. Please contact Tech Support for details.

Part Number	Description	Price	Availability
LPS-1550-FC	1550 nm, 1.5 mW, D Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$534.00	3-5 Days
LPS-1550-FC	CWL = 1547.9 nm, P = 1.5 mW (I = 24 mA), 25 °C	$534.00	3-5 Days
LPS-1550-FC	CWL = 1548.0 nm, P = 1.5 mW (I = 25 mA), 25 °C	$534.00	3-5 Days
LPS-1550-FC	CWL = 1548.4 nm, P = 1.5 mW (I = 25 mA), 25 °C	$534.00	Today

LPS-PM1550-FC	1550 nm, 1.5 mW, D Pin Code, PM Fiber-Pigtailed Laser Diode, FC/PC	$856.40	Today
LPS-PM1550-FC	CWL = 1541.8 nm, P = 1.5 mW (I = 28 mA), 25 °C	$856.40	3-5 Days
LPS-PM1550-FC	CWL = 1540.8 nm, P = 1.5 mW (I = 26 mA), 25 °C	$856.40	Today
LP1550-SAD2	1550 nm, 2 mW, TO Can DFB Laser, SM Fiber, Internal Isolator, FC/APC	$637.00	Today
LP1550-SAD2	CWL = 1550.6 nm, P = 2.0 mW (I = 28 mA), 25 °C	$637.00	Today
LP1550-SAD2	CWL = 1548.8 nm, P = 2.0 mW (I = 26 mA), 25 °C	$637.00	Today
LP1550-SAD2	CWL = 1549.1 nm, P = 2.0 mW (I = 25 mA), 25 °C	$637.00	Today
LP1550-SAD2	CWL = 1549.6 nm, P = 2.0 mW (I = 23 mA), 25 °C	$637.00	Today
L1550P5DFB	1550 nm, 5 mW, Ø5.6 mm, D Pin Code, DFB Laser Diode with Aspheric Lens Cap	$76.00 Volume Pricing Available	Today
ML925B45F	1550 nm, 5 mW, Ø5.6 mm, D Pin Code, Mitsubishi Laser Diode	$47.40 Volume Pricing Available	Today
SFL1550S	1550 nm, 40 mW, Butterfly External Cavity Laser, SM Fiber, FC/APC	$2,510.00	Today
SFL1550P	1550 nm, 40 mW, Butterfly External Cavity Laser, PM Fiber, FC/APC	$2,660.00	Today
LPSC-1550-FC	1550 nm, 50 mW, E Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$685.00	Today
LPSC-1550-FC	CWL = 1551.8 nm, P = 50.0 mW (I = 447 mA), 25 °C	$685.00	3-5 Days
LPSC-1550-FC	CWL = 1553.0 nm, P = 50.0 mW (I = 454 mA), 25 °C	$685.00	3-5 Days
LPSC-1550-FC	CWL = 1550.8 nm, P = 50.0 mW (I = 479 mA), 25 °C	$685.00	Today
FPL1009S	1550 nm, 100 mW, Butterfly Laser Diode, SM Fiber, FC/APC	$1,270.00	Today
FPL1009P	1550 nm, 100 mW, Butterfly Laser Diode, PM Fiber, FC/APC	$1,402.50	Today
FPL1001C	1550 nm, 150 mW Typical, Chip on Submount, Laser Diode	$250.00	Today
FPL1055T	1550 nm, 300 mW Pulsed, Ø5.6 mm, E Pin Code	$350.00	Lead Time
FPL1055C	1550 nm, 300 mW Pulsed, Chip on Submount, Laser Diode	$250.00	Today

Hide 1620 - 1650 nm

1620 - 1650 nm

Note: The rows shaded green below denote single-frequency laser diodes.

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
SFL1620S		1620	40	300 mA (Typ.)	SM Butterfly	14-Pin Butterfly	No	-	Yes[c]	Single Mode[d]
SFL1620P		1620	40	300 mA (Typ.)	PM Butterfly[e]	14-Pin Butterfly	No	-	Yes[c]	Single Mode[d]
LPSC-1625-FC		1625	50	350 mA / 500 mA	Ø5.6 mm, SM Pigtail	E	No	S7060R	Yes	Single Mode
FPL1054S		1625	80	400 mA / 500 mA	SM Butterfly	14-Pin Butterfly	No	-	Yes[c]	Single Mode
FPL1054P		1625	80	400 mA / 500 mA	PM Butterfly[e]	14-Pin Butterfly	No	-	Yes[c]	Single Mode
FPL1054C		1625	250 (Pulsed)	750 mA / 1000 mA	Chip on Submount	See Spec Sheet	No	-	No	Single Mode
FPL1054T[f]		1625	250 (Pulsed)	750 mA / 1000 mA	Ø5.6 mm	E	No	S7060R	No	Single Mode
FPL1059S		1650	80	400 mA / 500 mA	SM Butterfly	14-Pin Butterfly	No	-	Yes[c]	Single Mode
FPL1059P		1650	80	400 mA / 500 mA	PM Butterfly[e]	14-Pin Butterfly	No	-	Yes[c]	Single Mode
FPL1059C		1650	225 (Pulsed)	750 mA / 1000 mA	Chip on Submount	See Spec Sheet	No	-	No	Single Mode
[f]			225	750 mA / 1000						Single

FPL1059T		1650	(Pulsed)	mA	Ø5.6 mm	E	No	S7060R	No	Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. For the center wavelengths currently available or to place an order for a specific available wavelength, please contact Technical Support.
d. Single-Frequency Diode with Single Mode in Both Transverse and Longitudinal Modes
e. The slow axis of the polarization-maintaining fiber is aligned to the connector key.
f. This diode is available from stock in an open header package. It can be converted to a sealed TO can package by customer request. Please contact Tech Support for details.

Part Number	Description	Price	Availability
SFL1620S	1620 nm, 40 mW, Butterfly External Cavity Laser, SM Fiber, FC/APC	$2,510.00	Today
SFL1620P	1620 nm, 40 mW, Butterfly External Cavity Laser, PM Fiber, FC/APC	$2,660.00	Today
LPSC-1625-FC	1625 nm, 50 mW, E Pin Code, SM Fiber-Pigtailed Laser Diode, FC/PC	$685.00	Today
LPSC-1625-FC	CWL = 1623.2 nm, P = 50.0 mW (I = 288 mA), 25 °C	$685.00	3-5 Days
LPSC-1625-FC	CWL = 1622.5 nm, P = 50.0 mW (I = 324 mA), 25 °C	$685.00	Today
FPL1054S	1625 nm, 80 mW, Butterfly Laser Diode, SM Fiber, FC/APC	$1,320.00	Today
FPL1054P	1625 nm, 80 mW, Butterfly Laser Diode, PM Fiber, FC/APC	$1,450.00	Today
FPL1054C	1625 nm, 250 mW Pulsed, Chip on Submount, Laser Diode	$275.00	Today
FPL1054T	1625 nm, 250 mW Pulsed, Ø5.6 mm, E Pin Code	$385.00	Today
FPL1059S	1650 nm, 80 mW, Butterfly Laser Diode, SM Fiber, FC/APC	$1,350.00	Today
FPL1059P	1650 nm, 80 mW, Butterfly Laser Diode, PM Fiber, FC/APC	$1,475.00	Lead Time
FPL1059C	1650 nm, 225 mW Pulsed, Chip on Submount, Laser Diode	$300.00	Today
FPL1059T	1650 nm, 225 mW Pulsed, Ø5.6 mm, E Pin Code	$420.00	Today

Hide 1940 - 2000 nm

1940 - 2000 nm

Item #	Info	Wavelength (nm)	Power (mW)[a]	Typical/Max Drive Current[a]	Package	Pin Code	Monitor Photodiode[b]	Compatible Socket	Wavelength Tested	Spatial Mode
FPL1940S		1940	15	400 mA / 500 mA	SM Butterfly	14-Pin Butterfly	No	-	Yes[c]	Single Mode
FPL2000S		2000	15	400 mA / 500 mA	SM Butterfly	14-Pin Butterfly	No	-	Yes[c]	Single Mode
FPL2000C		2000	30	400 mA / 500 mA	Chip on Submount	See Spec Sheet	No	-	No	Single Mode
FPL2000CM		2000	30	400 mA / 500 mA	C-Mount	See Spec Sheet	No	-	No	Single Mode

a. Do not exceed the maximum optical power or maximum drive current, whichever occurs first.
b. Laser diodes with a built-in monitor photodiode can operate at constant power.
c. For the center wavelengths currently available or to place an order for a specific available wavelength, please contact Technical Support.

Part Number	Description	Price	Availability
FPL1940S	1940 nm, 15 mW, Butterfly Laser Diode, SM Fiber, FC/APC	$3,000.00	Today
FPL2000S	2000 nm, 15 mW, Butterfly Laser Diode, SM Fiber, FC/APC	$3,500.00	Today
FPL2000C	2000 nm, 30 mW Typical, Chip on Submount, Laser Diode	$1,500.00	Today
FPL2000CM	2000 nm, 30 mW, One-Tab C-Mount, Laser Diode	$1,500.00	Today

Visit the *NIR Laser Diodes: Center Wavelengths from 705 nm to 2000 nm* page for pricing and availability information:
http://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=4737