



LLP Series — 650nm Miniature Dot Laser Diode Modules

Elliptical Beam, Dia. 9mm, 3-4.5VDC



Overview

The Lasermate LLP series 650nm laser diode modules are designed for OEM applications requiring a compact, low-cost solution with basic performance and beam focusing. Featuring a miniature cylindrical package (9mm diameter), fixed focus, and elliptical beam profile, the LLP series is ideal for general sighting, alignment, positioning, pointing, leveling, and sensing applications. The modules include an Automatic Power Control (APC) circuit to ensure stable output power. For continuous long-term operation, additional heat sinking may be required.

Features

- 650nm wavelength
- Basic performance and lowest cost
- Miniature design: Dia. 9mm x L 18.3mm
- Fixed focus
- Elliptical beam profile
- Automatic Power Control (APC) circuit
- Connector: Pin (-) and Brass Case (+)

Applications

- Pointing
- Leveling
- Sensing

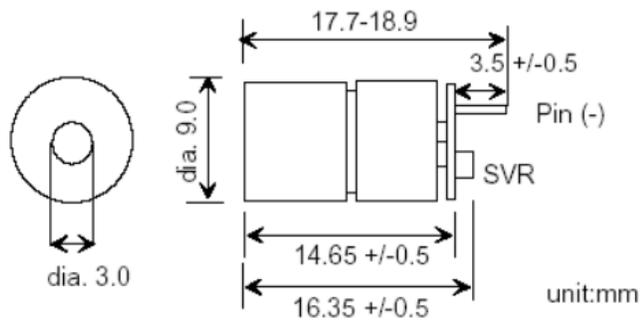
Product Overview

Part Number	Wavelength (nm)	Optical output power (mW)	Laser class	Operating voltage (V DC)	Operating Current typical (mA)	Operating temperature (°C)
LLP6501FS	650	0.7-0.99	II	3-4.5	<40	-10 to +40

Specifications of LLP Series Laser Diode Modules

Laser diode (nm)	650 nm +/-10 nm, 5mW
Laser class	Class II
Output power	0.7-0.99mW @ 4.5V DC
Operating current	<40mA
Operating voltage	3-4.5V DC
Circuit board	APC without voltage regulator and with the pin hole
Optics	Singlet plastic collimating lens
Beam size @ 5m	<7 x 11 mm
Focus	Fixed
Solder high on the side of pin	<1.5 mm (or 0.06 inch)
Operating temperature	-10 to +40°C
Connector	Pin (-) & brass case (+)

Dimensions of LLP Series Laser Diode Modules (unit: mm)



Additional Notes

- The LLP series laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Additional heat sink may be needed if the laser module is operated continuously for a long period of time.
- Specifications are subject to change without notice.



Lasermate Group, Inc.
 19608 Camino De Rosa
 Walnut, CA 91789 USA
 Tel: (909)718-0999
 Fax: (909)718-0998
sales@lasermate.com
www.lasermate.com