



PLG Series – 635nm–980nm Miniature Laser Diode Modules

Elliptical Beam, Dia. 10.5mm × L. 20.5mm, 3–6VDC



Overview

The Lasermate PLG series laser diode module is a complete laser diode system designed for OEM applications with low cost, miniature size, and beam focusing requirements. Additional heat sink may be needed for the laser module under continuously operating for a long period of time. Designed for OEM, the laser is ideal for a wide range of low power laser applications, such as general sighting, leveling, and positioning.

Features

- Wide range of wavelengths from 635nm to 980nm (including 650nm, 670nm, 780nm, 808nm, 850nm, 904nm)
- Different output power levels for different wavelengths
- Good performance and low cost
- Miniature design: Dia. 10.5mm x L. 20.5mm
- Adjustable or fixed focus
- Elliptical beam profile
- Singlet glass collimating lens
- Automatic Power Control (APC) circuit

Applications

- Pointing
- Leveling
- Sensing

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating temperature, and focus for PLG series laser modules.

Part Number	Wavelength (nm)	Output power (mW)	Laser class	Operating voltage (VDC)	Operating Current typ. (mA)	Operating Temperature (°C)	Focus
PLG6351AE-B	635	0.5-0.99	II	3-6	40	-10 to +40	Adjustable
PLG6351FE-B	635	0.5-0.99	II	3-6	40	-10 to +40	Fixed
PLG6354AE-B	635	2.5-3.5	IIIa	3-6	40	-10 to +40	Adjustable
PLG6354FE-B	635	2.5-3.5	IIIa	3-6	40	-10 to +40	Fixed
PLG6357AE-B	635	5-7	IIIb	3-4.5	60	-10 to +40	Adjustable
PLG6357FE-B	635	5-7	IIIb	3-4.5	60	-10 to +40	Fixed
PLG6351AE-A	635	0.5-0.99	II	3-6	40	-10 to +50	Adjustable
PLG6351FE-A	635	0.5-0.99	II	3-6	40	-10 to +50	Fixed
PLG6354AE-A	635	2.5-3.5	IIIa	3-6	40	-10 to +50	Adjustable
PLG6354FE-A	635	2.5-3.5	IIIa	3-6	40	-10 to +50	Fixed
PLG6357AE-A	635	5-7	IIIb	3-4.5	60	-10 to +50	Adjustable
PLG6357FE-A	635	5-7	IIIb	3-4.5	60	-10 to +50	Fixed
PLG6501AE-B	650	0.5-0.99	II	3-6	25	-10 to +40	Adjustable
PLG6501FE-B	650	0.5-0.99	II	3-6	25	-10 to +40	Fixed
PLG6504AE-B	650	2.5-3.5	IIIa	3-6	30	-10 to +40	Adjustable
PLG6504FE-B	650	2.5-3.5	IIIa	3-6	30	-10 to +40	Fixed
PLG6501AE-A	650	0.5-0.99	II	3-6	25	-10 to +50	Adjustable
PLG6501FE-A	650	0.5-0.99	II	3-6	25	-10 to +50	Fixed
PLG6504AE-A	650	2.5-3.5	IIIa	3-6	30	-10 to +50	Adjustable
PLG6504FE-A	650	2.5-3.5	IIIa	3-6	30	-10 to +50	Fixed
PLG6507AE-A	650	5-7	IIIb	3-6	30	-10 to +50	Adjustable
PLG6507FE-A	650	5-7	IIIb	3-6	30	-10 to +50	Fixed
PLG6701AE	670	0.5-0.99	II	3-6	40	-10 to +50	Adjustable
PLG6701FE	670	0.5-0.99	II	3-6	40	-10 to +50	Fixed
PLG6704AE	670	2.5-3.5	IIIa	3-6	40	-10 to +50	Adjustable
PLG6704FE	670	2.5-3.5	IIIa	3-6	40	-10 to +50	Fixed
PLG7804AE	780	2.5-3.5	IIIb	3-6	30	-10 to +50	Adjustable
PLG7804FE	780	2.5-3.5	IIIb	3-6	30	-10 to +50	Fixed
PLG8084AE	808	2.5-3.5	IIIb	3-6	30	-10 to +40	Adjustable
PLG8084FE	808	2.5-3.5	IIIb	3-6	30	-10 to +40	Fixed
PLG8504AE	850	2.5-3.5	IIIb	3-6	30	-10 to +50	Adjustable
PLG8504FE	850	2.5-3.5	IIIb	3-6	30	-10 to +50	Fixed
PLG9044AE	904	2.5-3.5	IIIb	3-6	30	-10 to +50	Adjustable
PLG9044FE	904	2.5-3.5	IIIb	3-6	30	-10 to +50	Fixed
PLG9047AE	904	5-7	IIIb	3-6	40	-10 to +50	Adjustable
PLG9047FE	904	5-7	IIIb	3-6	40	-10 to +50	Fixed
PLG9807AE	980	5-7	IIIb	3-6	45	-10 to +40	Adjustable
PLG9807FE	980	5-7	IIIb	3-6	45	-10 to +40	Fixed

Specifications of PLG Series Laser Diode Modules

Wavelength (nm)	635	650	670	780	808	850	904	980
Laser light	Visible Red			Infrared				
Laser class	Class II <1mW, Class IIIa <5mW, Class IIIb >5mW			Class IIIb				
Diode structure	Index guided							
Diode output power	5-10mW							
Operating current	25-50mA typical							
Operating voltage	3–6 VDC							
Drive circuit	Regulated APC (automatic power control)							
Optics	Singlet glass collimating lens							
Beam divergence	< 0.5 mrad							
Beam size @ 5 m	~5 x 8 mm							
Beam profile	Elliptic							
Focus	Standard: Adjustable (Optional: Fixed)							
Operating temperature	-10 to +40 °C or -10 to +50 °C							
Connector	Black wire -, red wire + & brass case +							
Dimensions	Dia. 10.5mm x L. 20.5mm							
Weight	9.7gm typical							

Additional Notes

- The PLG 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