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Data Sheet
Rev 01.1220

532nm Green Dot DPSS Laser Modules, APC Circuit with Pulse Function, Dia. 8mm

GMY532 Series

Overview

The Lasermate GMY532 series laser modules are 532nm green diode-pumped solid-state laser modules in cylinder package available in different output power levels and with 3VDC operating voltage. The laser modules also feature Automatic Power Control (APC) circuit design with pulse function.

Features

- 532nm green DPSS laser module
- Automatic Power Control (APC) circuit with pulse function
- Low operating current
- Output power stability 10%
- Smallest size: Brass case Dia. 8mm x L. 30.5mm; PCB W. 9mm x L. 20.2mm

Applications

- Pointing
- Leveling
- Sensing

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating voltage, and operating current for GMY532 series laser modules.

Part Number	Wavelength (nm)	Output power (mW)	Laser class	Operating Current typical (mA)	Operating Voltage (V DC)
GMY532-1F3-PP	532	0.4-0.99	II	140	3
GMY532-5F3-PP	532	3-4.99	IIIa	140	3

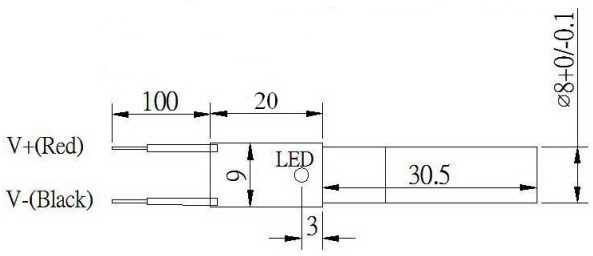
Specifications of GMY532 Series 532nm Green DPSS Laser Modules

Model Number	GMY532-XF3-PP	
Wavelength	532 nm	
Mode	TEM_{00}	
Peak Power (mW)	0.4-0.99 **(X=1)**	3-4.99 **(X=5)**
Laser Class	Class II	Class IIIa
Operating Current (A)	140mA typical	
Operating Voltage	3V DC	
Circuit Design	APC with pulse function, ~120Hz 50% duty cycle	
Stability	≤ ±10% @ 25 ± 3 °C	
M^2	< 2	
Linewidth	< 0.1 nm	
Polarization	Linear	
Beam Divergence	<1.2 mrad	
Beam Diameter ($1/e^2$)	< 2 mm	
Connector	Standard: Black wire (-); red wire & brass case (+)	
Storage Temperature	10 - 50 °C	
Optimum Operating Temperature	20 - 28 °C	
Expected Lifetime	>3,000 hr	
Dimensions (LxW)	Dia. 8mm x L. 30.5+/-0.5mm (green laser head), W. 9 mm x L. 20.2 mm (driver circuit board)	

Notes:

1. Additional heat sink or cooling fan may be needed to stabilize the output power of laser module if the laser module is operated continuously in a period of time.
2. The expected lifetime of green laser module is based on the MTTF (Mean Time To Failure) rating of 808nm laser diode used in the green laser module.

Mechanical Outline (unit: mm)



Additional Notes

- The GMY532 series diode pumped solid stated green laser modules, which use laser diode pumped Nd:YVO_4 crystal coupled with KTP as a frequency doubler, are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with FDA 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.
- 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