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Data Sheet
Rev 01.1220

532nm Green Dot DPSS Laser Modules, Dia. 12mm

GMP532 Series

Overview

The Lasermate GMP532 series laser modules are 532nm green diode-pumped solid-state laser modules in cylinder package available in different output power levels and focus fixed.

Features

- 532nm green DPSS laser module
- Automatic Power Control (APC) circuit with limited current to protect module
- Low operating current
- Compact size
- Output power stability 5%
- Fixed Focus

Applications

- Pointing
- Leveling
- Sensing

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating voltage, operating current, and laser beam off center axial of brass housing for GMP532 series laser modules.

Part Number	Wavelength (nm)	Output power (mW)	Laser class	Operating Current (A)	Operating Voltage (VDC)	Laser beam off center axial of brass housing (°)
GMP532-1F3-CP	532	0.5-0.99	II	<0.30	3	≤+/-5
GMP532-1F3-CPB3	532	0.5-0.99	II	<0.30	3	≤+/-3
GMP532-1F3-CPB1	532	0.5-0.99	II	<0.30	3	≤+/-1.5
GMP532-5F3-CP	532	3-4.99	IIIa	<0.30	3	≤+/-5
GMP532-5F3-CPB3	532	3-4.99	IIIa	<0.30	3	≤+/-3
GMP532-5F3-CPB1	532	3-4.99	IIIa	<0.30	3	≤+/-1.5
GMP532-10F3-CP	532	7-10	IIIb	<0.30	3	≤+/-5
GMP532-10F3-CPB3	532	7-10	IIIb	<0.30	3	≤+/-3
GMP532-10F3-CPB1	532	7-10	IIIb	<0.30	3	≤+/-1.5
GMP532-20F3-CP	532	16-20	IIIb	<0.30	3	≤+/-5
GMP532-20F3-CPB3	532	16-20	IIIb	<0.30	3	≤+/-3
GMP532-20F3-CPB1	532	16-20	IIIb	<0.30	3	≤+/-1.5

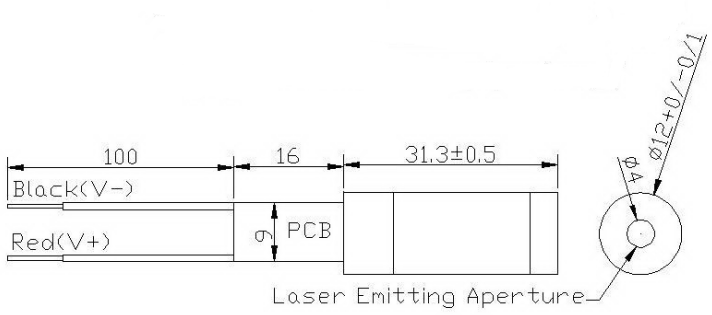
Specifications of GMP532 Series 532nm Green DPSS Laser Modules

Model Number	GMP532-XF3-CPY			
Wavelength	532 nm			
Mode	TEMoo			
Output power (mW) @ 3VDC, 25 °C	0.5-0.99 **(X=1)**	3-4.99 **(X=5)**	7-10 **(X=10)**	16-20 **(X=20)**
Laser class	Class II	Class IIIa	Class IIIb	Class IIIb
Laser beam off the center axial of brass housing	≤+/-5 degree **(Y= blank)**; ≤+/-3 degree **(Y=B3)**; ≤+/-1.5 degree **(Y=B1)**			
Operating Current (A)	<0.30			
Operating Voltage	3V DC			
Circuit Design	APC with limited current, CW operation mode			
Stability	≤ ±5% @ the constant temperature			
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 (+)			
Length of wires	10 cm			
Storage Temperature	10 - 50 °C			
Optimum Operating Temperature	20 - 30 °C			
Expected Lifetime	>3,000 hr			
Dimensions (LxW)	**For Y=blank and Y=B3:** Dia. 12mm x L. 31.3+/-0.5 mm (green laser head), W. 9 x L. 16 mm (driver circuit board) **For Y=B1:** Dia. 12mm x L. 35.3+/-0.5 mm (green laser head), W. 9 x L. 16 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 GMP532 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.

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