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Data Sheet
Rev 01.1220

532nm Green Dot DPSS Laser Modules, Soft-Start Protection, TTL Modulation up to 1kHz

GMF532 Series

Overview

The Lasermate GMF532 series laser modules are 532nm green diode-pumped solid-state laser modules in rectangular package available in different output power levels, with Automatic Power Control (APC) circuit design, and with soft-start protection and AC adapter included.

Features

- 532nm green DPSS laser module
- Automatic Power Control (APC) circuit with soft-start protection
- Low cost
- Fixed focus
- TTL modulation available
- Automatic cooling fan
- Compact size

Applications

- Pointing
- Leveling
- Sensing

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating current, and optional AC adapter for GMC532 series laser modules.

Part Number	Wavelength (nm)	Output power (mW)	Laser class	Operating Current (A)	AC Adapter included
GMF532-1FBP1	532	<1	II	<0.3	Yes
GMF532-5FBP1	532	<5	IIIa	<0.3	Yes
GMF532-30FBP1	532	>30	IIIb	<0.4	Yes
GMF532-50FBP1	532	>50	IIIb	<0.65	Yes

Specifications of GMF532 Series 532nm Green DPSS Laser Modules

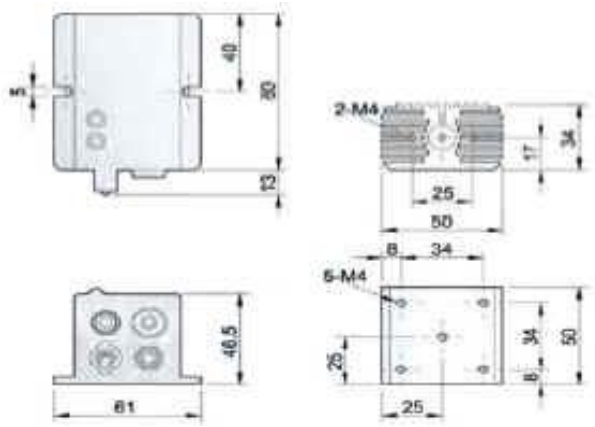
Model Number	GMF532-XFBP1
Wavelength	532 nm
Mode	TEM_{00}
Output Power (mW) @ 25 °C	<1 **(X=1),** <5 **(X=5),** >30 **(X=30),** >50 **(X=50)**
Laser class	Class II: **X=1**, Class IIIa: **X=5**, Class IIIb: **X=30, 50**
Operating Current (A)	<0.3 for <5mW, <0.4 for >30mW, <0.65 for >50mW
PCB Driver	PCB driver in box with switch
Focus	Fixed
Circuit Design	APC (Automatic Power Control)
Operation Mode	CW with TTL capable and up to 1KHz
M^2	< 2
Linewidth	< 0.1 nm
Linear Polarization	Standard ≥4:1
Beam Divergence	<1.5 mrad
Beam Diameter	< 1.5 mm at the aperture
Stability	≤±5% @ 25 ± 3°C
9V AC Adapter	Included
Connector	DC-Jack for CW & BNC for TTL
Storage Temperature	10 - 50 °C
Optimum Operating Temperature	20-30 °C
MTTF	5,000 hrs
Dimensions (LxWxH)	50 x 50 x 34 mm (green laser head) W. 61 x L. 80 x H. 45.5 mm (PCB driver in box)

Notes:

1. Additional heat sink or cooling fan may be needed to stabilize the output power of laser module.
2. MTTF (Mean Time to Failure) is based on the MTTF rating of high power 808nm laser diode used from the laser diode manufacturer.

Mechanical Outline (unit: mm)

Subassembly PCB in Box with Switch



Additional Notes

- The GMF532 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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