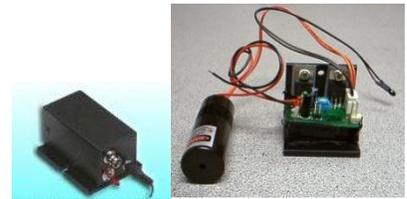




GMC532 Series – 532nm Green DPSS Laser Modules with APC Circuit and Fixed Focus

Compact Cylinder Package, TTL Optional, 9-15VDC Operation



Overview

The Lasermate GMC532 series laser modules are 532nm green diode-pumped solid-state laser modules in cylinder package available in different output power levels, and with Automatic Power Control (APC) circuit design and fixed focus. The laser head is available with either PCB driver that includes heat sink or PCB driver in box with AC adapter included.

Features

- 532nm green DPSS laser module
- Automatic Power Control (APC) circuit with limited current
- Low cost
- Fixed focus
- Cylinder package
- TTL modulation available
- Output power stability 5%

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 optional AC adapter for GMC532 series laser modules.

Part Number	Wavelength (nm)	Output power (mW)	Laser class	Operating voltage (V DC)	Operating Current (A)	AC Adapter included
GMC532-1F9P1	532	0.5-0.99	II	9-15	<0.30	No
GMC532-5F9P1	532	3-4.99	IIIa	9-15	<0.30	No
GMC532-10F9P1	532	7-10	IIIb	9-15	<0.30	No
GMC532-20F9P1	532	16-20	IIIb	9-15	<0.30	No
GMC532-1FBP1	532	0.5-0.99	II	9-15	<0.30	Yes
GMC532-5FBP1	532	3-4.99	IIIa	9-15	<0.30	Yes
GMC532-10FBP1	532	7-10	IIIb	9-15	<0.30	Yes
GMC532-20FBP1	532	16-20	IIIb	9-15	<0.30	Yes

Specifications of GMC532 Series 532nm Green DPSS Laser Modules

Wavelength	532 nm			
Mode	TEM ₀₀			
Output Power @ 25 °C	0.5-0.99 mW	3-4.99 mW	7-10 mW	16-20 mW
Operating Current	<0.30 A			
Laser Class	Class II	Class IIIa	Class IIIb	Class IIIb
PCB Driver	9-15V DC or PCB driver in box with switch			
Focus	Fixed			
Circuit Design	APC			
Operation Mode	CW with TTL capable and up to 1KHz			
Linewidth	< 0.1 nm			
Linear Polarization	Standard ≥4:1			
Beam Divergence	<1.2 mrad			
Beam Diameter	< 1.5mm at aperture			
Stability	≤ ±5% @ constant temperature			
Overheat Protection	Optional for 9-15V DC PCB driver			
AC adapter	Included (PCB driver in box with switch); None (9-15V DC PCB driver)			
Connector	For 9-15V DC PCB driver: Black (-) & red (+) wires for CW & Jump for TTL For PCB driver in box with switch: DC-Jack for CW & BNC for TTL			
Storage Temperature	10 - 50 °C			
Optimum Operating Temperature	22 - 28 °C			
MTTF	>3,000 hrs			
Dimensions (LxWxH)	Dia. 20 mm x 58.5 mm (green laser head) For 9-15V DC PCB driver: W. 40mm x L. 37.5mm x H. 38mm (PCB driver including heat sink) For PCB driver in box with switch: W. 60mm x L. 80mm x H. 45.5mm (PCB driver in box)			

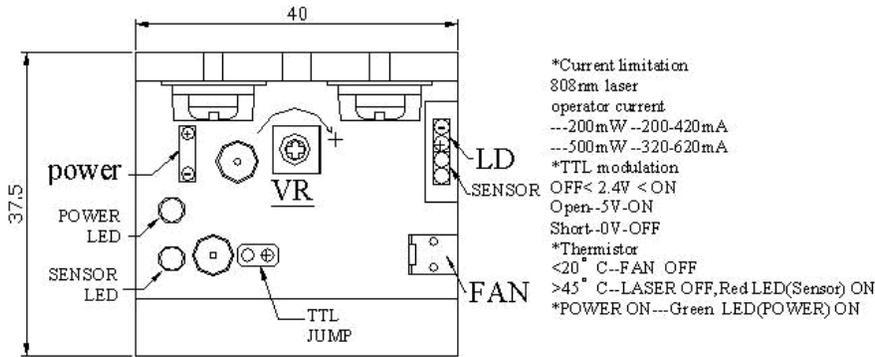
Notes:

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.

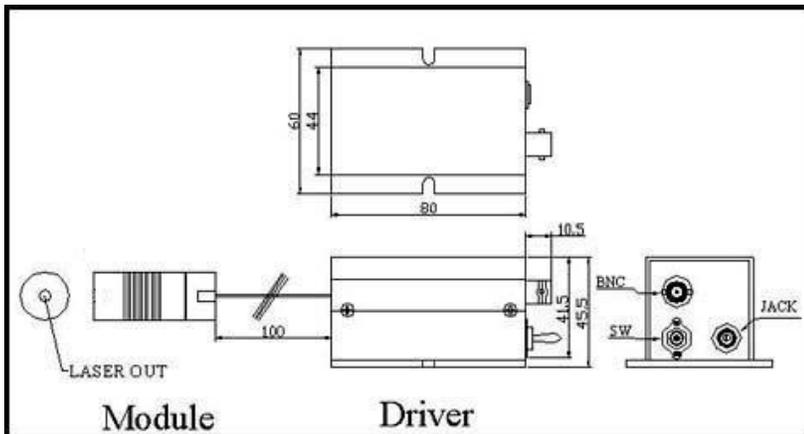
Mechanical Outline (unit: mm)

PCB Driver

9-15V PCB



Subassembly PCB in Box with Switch



Additional Notes

- The GMC532 series diode pumped solid stated green laser modules, which use laser diode pumped Nd:YVO₄ 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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