



GMD532-F Series – 532nm Green Dot DPSS Laser Modules

Fixed Focus, Diameter 20mm



Overview

The Lasermate GMD532-F series laser modules are 532nm green diode-pumped solid-state (DPSS) lasers housed in a 20mm diameter cylindrical package. These modules are available with 3VDC or 5VDC operating voltages, feature fixed focus optics, and are designed for use in a wide range of industrial and sensing applications. The GMD532-F series incorporates an Automatic Power Control (APC) circuit with current limiting for enhanced stability and module protection. The module comes without mounting holes, providing a clean form factor for integration into OEM systems.

Features

- 532nm green DPSS laser module
- Automatic Power Control (APC) circuit with limited current
- Fixed focus
- Compact cylindrical package (Ø20mm)
- No mounting holes
- Output power stability 5%
- Cost-effective solution

Applications

- Industrial pointing systems
- Leveling and alignment
- Optical sensing
- OEM laser integration

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating voltage, and operating current for GMD532-F series laser modules.

Part Number	Wavelength (nm)	Output power (mW)	Laser class	Operating voltage (V DC)	Operating Current (A)
GMD532-1F3P1V3	532	0.5-0.99	II	3	<0.30
GMD532-5F3P1V3	532	3-5	IIIa	3	<0.30
GMD532-10F3P1V3	532	7-10	IIIb	3	<0.30
GMD532-20F3P1V3	532	16-20	IIIb	3	<0.30
GMD532-1F5P1V3	532	0.5-0.99	II	5	<0.30
GMD532-5F5P1V3	532	3-5	IIIa	5	<0.30
GMD532-10F5P1V3	532	7-10	IIIb	5	<0.30
GMD532-20F5P1V3	532	16-20	IIIb	5	<0.30

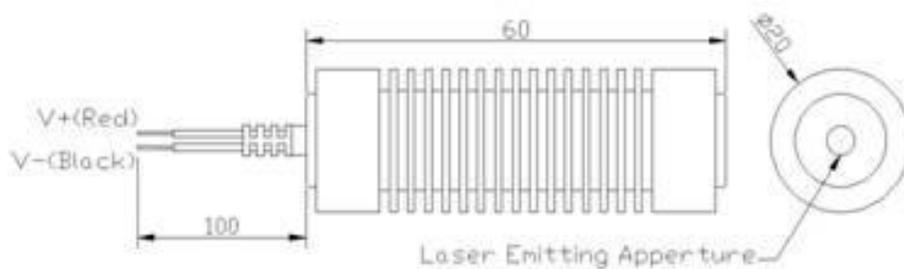
Specifications of GMD532-F Series DPSS Laser Modules

Wavelength	532 nm			
Mode	TEM ₀₀			
Output power @ 25 °C	0.5-0.99 mW	3-5 mW	7-10 mW	16-20 mW
Laser class	Class II	Class IIIa	Class IIIb	Class IIIb
Operating Current	<0.30 A			
Operating Voltage	3+/-0.3V DC or 5+/-0.5V DC			
Focus	Fixed			
Circuit Design	APC (automatic power control)			
Operation Mode	CW			
M ²	< 2			
Linewidth	< 0.1 nm			
Linear Polarization Ratio	≥4:1			
Beam Divergence	<1.2 mrad			
Beam Diameter at aperture	< 1.5 mm			
Output Power Stability for 1 hr	<±5% (typical 1%) @ the constant temperature			
Connector	Black (-) & red (+) wires			
Storage Temperature	-10 - 50 °C			
Optimum Operating Temperature	20-30 °C			
MTTF*	>3,000 hrs			
Dimensions	Dia. 20mm x L. 60mm			

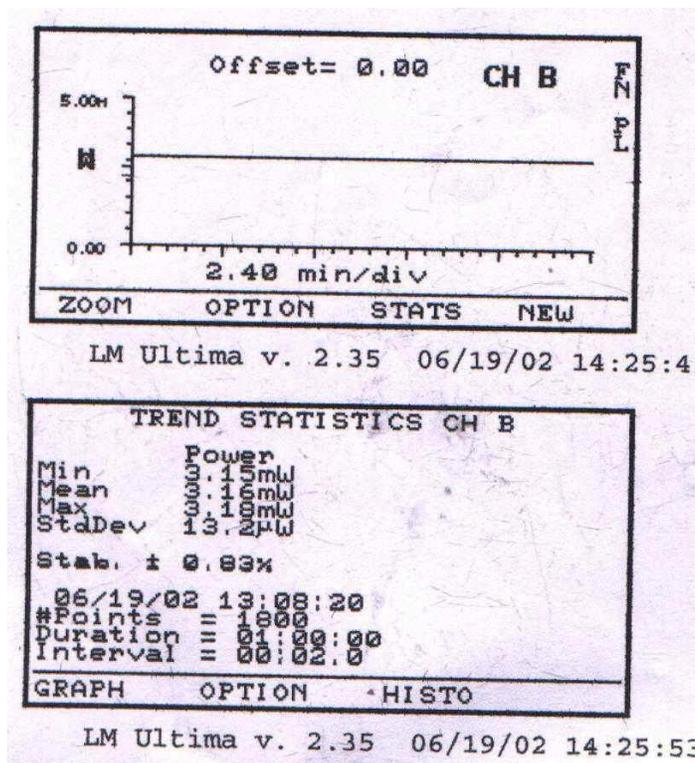
Notes:

1. MTTF (Mean Time to Failure) is based on the MTTF rating of high power 808nm laser diode used from the laser diode manufacturer at 25°C.

Mechanical Outline (unit: mm)



Typical Test Data of the Stability of Optical Output Power for 1hr



Additional Notes

- The GMD532-F 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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