

II-VI



GDLM-A004R2D9IP

Wide Operating Temperature Green Laser Module

PRODUCT OVERVIEW

II-VI's GDL-A and GDLM-A green laser module series can maintain stable output power across a wide operating temperature range of more than 40°C without a TEC. They are an ideal laser source for collimated laser modules, laser line modules, or fiber pigtailed laser modules.

Features

- High reliability
- Compactable size
- Automatic power control
- Low power consumption
- Wide operating temperature range

Applications

- Surveying equipment
- Laser alignment & pointing

Wide Operating Temperature Green Laser Module

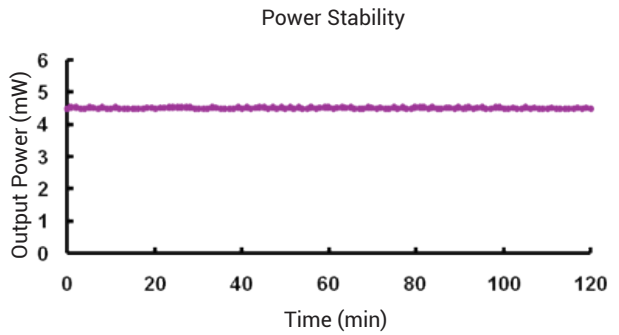
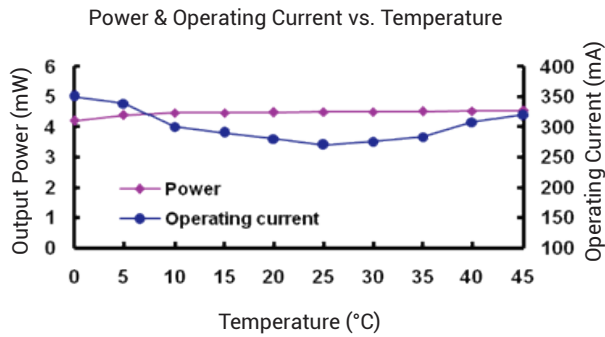
Product Specifications

Parameter		Min	Typical	Max	Conditions
Optical					
Wavelength		531 nm	532 nm	533 nm	
Output Power		4.2 mW	4.5 mW	4.8 mW	At 25°C
Power Stability	2 h @ constant temp.	-	-	±5%	APC
	Over operating temp. range	3 mW	-	4.8 mW	
Operating Temperature (case)		-	5~45°C	-	APC
Residual IR		-	-	1%	
Beam Diameter		-	-	21 mm	At 30 m
Beam Divergence		-	-	0.7 mrad	Full angle
Roundness		70%	80%	100%	
Warm-Up Time		-	1 s	-	5~45°C
Electrical					
LD Working Current		-	265 mA ⁽¹⁾	400 mA	
LD Working Voltage		1.6 V	1.9 V	2.2 V	
Monitor Current		5 µA	-	110 µA	
GDL Power Consumption		-	0.53 W ⁽¹⁾	0.88 W	
Mechanical					
Laser Head Dimensions	Length	45.9 mm	46 mm	46.1 mm	
	Diameter	11.9 mm	12 mm	12.1 mm	
Beam Alignment Tolerance	Position (Δr)	-	0.3 mm	0.5 mm	
	Angle	-	7 mrad	17.5 mrad	
Reliability					
Storage Temperature		-20 to 60°C			
Shock		1000 g, 1 ms, 6 shocks, 3 axes, 2 shocks/axis			
Vibration		20~2000 Hz, 0.02 g ² /Hz, 3 axes, 1 h/axis			
Expected Lifetime (MTTF)		5000 h	-	-	At 4.5 mW & 25°C

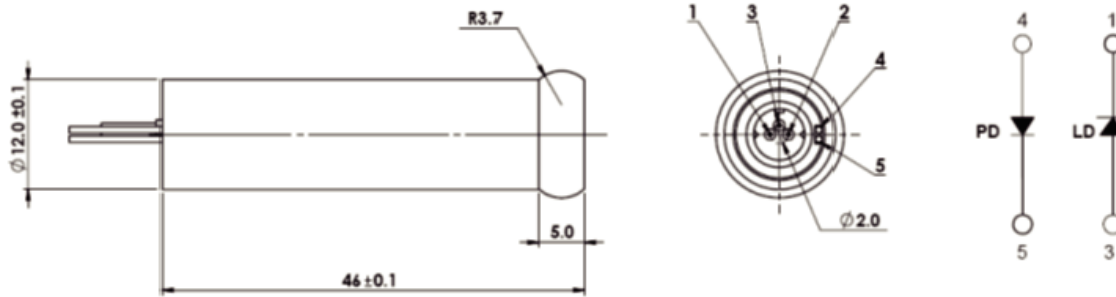
⁽¹⁾4.5 mW at 25°C.

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Typical Output Performance



Dimensions and Pin Configuration (Unit: mm)



Pin Configurations: 1. LD-; 2. None; 3. LD+; 4. PD+; 5. PD-