1535nm 200uJ Er:Glass Pulsed Solid-State Laser

Technical Datasheet | Product Information

1. Product Overview

The 1535nm 200uJ Er:Glass pulsed solid-state laser is designed for laser rangefinding, target indication, LiDAR, remote sensing, security monitoring, and smart city sensing applications under an eye-safe wavelength range. The module uses a semiconductor laser as the pump source and Er:Glass bonded crystal as the gain medium. It is designed for high reliability, convenient integration, compact size, and low weight.

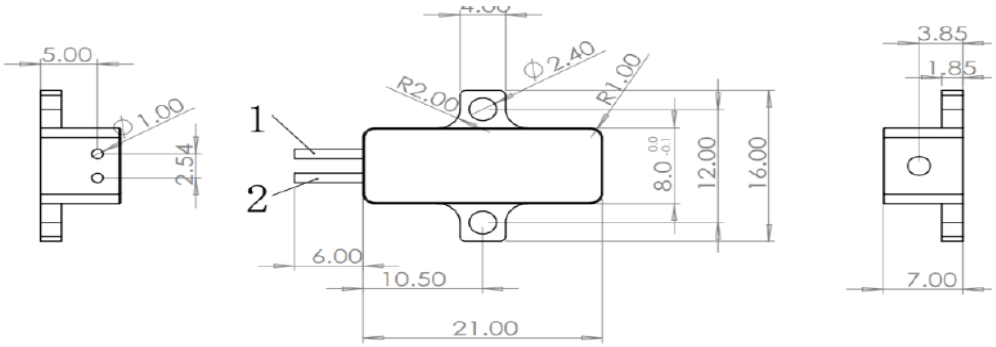
2. Key Features

- 1535nm eye-safe wavelength range for rangefinding and optoelectronic sensing systems.
- 200uJ typical pulse energy, up to 300uJ maximum.
- 4.5ns typical pulse width and 1-10Hz repetition rate.
- Compact and lightweight solid-state design for embedded integration.
- Operating temperature range from -40 deg C to +60 deg C.

3. Technical Specifications

Category	Item	Unit	Min.	Typical	Max.
Optical	Wavelength	nm	-	1535 +/- 2	-
Optical	Pulse Width (FWHM)	ns	4	4.5	5
Optical	Pulse Energy	uJ	-	200	300
Optical	Repetition Rate	Hz	-	1-10	-
Optical	Divergence Angle	mrad	-	10	-
Electrical	Operating Pulse Width	ms	1	1.8	2.5
Electrical	Operating Current	A	8	10	12
Other	Operating Temperature	deg C	-40	25	60
Other	Storage Temperature	deg C	-40	25	70

4. Mechanical Dimensions and Pin Definition



针脚	功能
1	LD(+)
2	LD(−)

Pin definition: 1 - LD (+), 2 - LD (-). Dimensions follow the original engineering drawing.

5. Safety and Handling Notes

Laser Safety

The laser emits at 1535nm, which is within the eye-safe wavelength range. Direct viewing of the laser beam is still not recommended, as improper use may cause irreversible eye injury.

Power Supply and ESD Protection

- Electrostatic discharge or surge current may damage the laser, cause P-N junction breakdown, or reduce long-term reliability.
- Use ESD protection when handling the laser. Clothing, hats, shoes, and related items should also be treated for ESD safety where required.
- Power supplies, computing instruments, and related equipment must be properly grounded.
- Use a pulsed laser power supply. Before power-on, verify correct polarity and ensure there is no reverse connection.
- Do not plug or unplug the laser circuit while powered.
- ESD protection is required during transportation, storage, and operation.

6. Company Information

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