



LD830E1WG13

High Power 830nm 1000mW FP Laser Diode in C-Mount Package

Description

The Lasermate LD830E1WG13 is a high power 830nm, 1000mW Fabry-Perot laser diode in C-mount package. The laser diode is suitable as laser light source for many applications.

Features

- 830nm Fabry-Perot cavity semiconductor laser
- Optical output power: 1000mW CW
- High output power
- No monitor photodiode
- Package: C-mount

Specifications (T_c = 20°C)

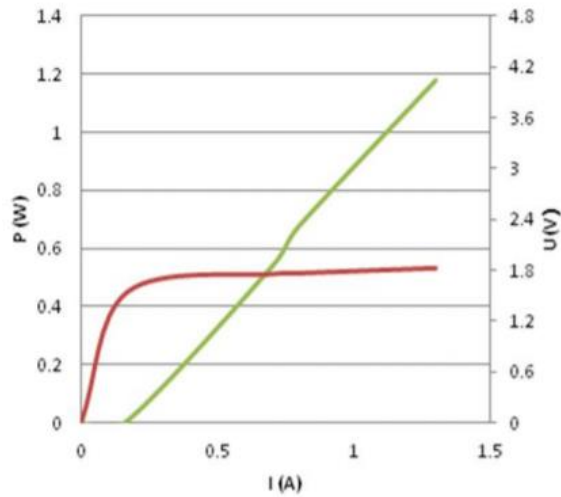
| OPTICAL CHARACTERISTICS | | |
|-------------------------|--------|-------|
| PARAMETER | TYP. | UNIT |
| Lasing wavelength | 830±10 | nm |
| Output power | 1 | W |
| Spectral width | ≤3 | nm |
| Emitting area width | 50 | um |
| Temperature coefficient | 0.30 | nm/°C |
| Fast axis divergence | <40 | deg |
| Slow axis divergence | <10 | deg |

| ELECTRICAL CHARACTERISTICS | | |
|----------------------------|-------|------|
| PARAMETER | TYP. | UNIT |
| Slope efficiency | ≥1.03 | W/A |
| Threshold current | ≤0.30 | A |
| Operating current | ≤1.30 | A |
| Operating voltage | ≤2.0 | V |

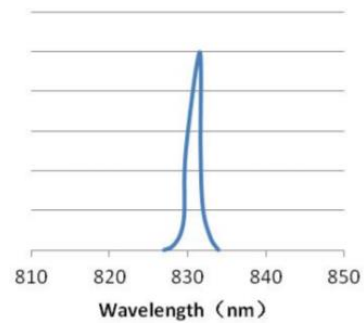
| OTHERS CHARACTERISTICS | | |
|------------------------|------------|------|
| PARAMETER | TYP. | UNIT |
| Package | C-Mount | - |
| Operating temperature | 15 to 30 | °C |
| Storage temperature | -40 to +60 | °C |
| Welding temperature | ≤260 | °C |

Typical Characteristics

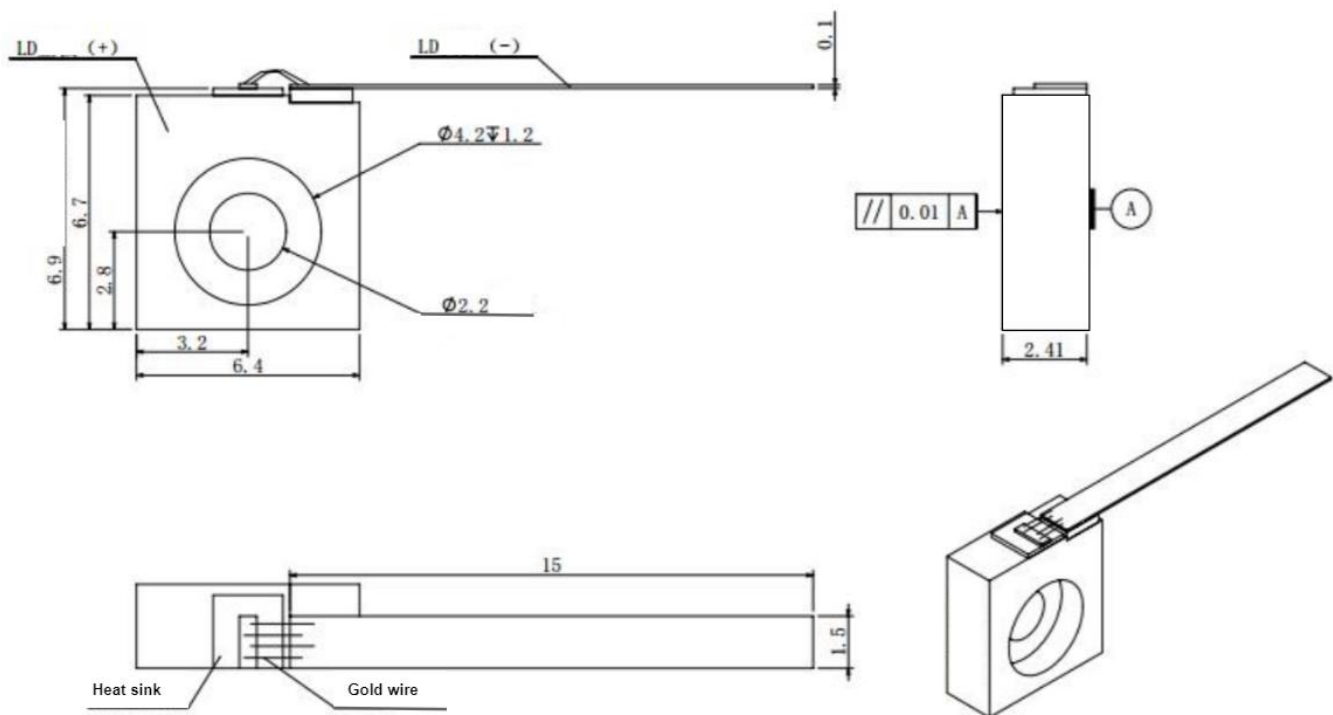
P-I-V CURVE



SPECTRAL CURVE



Mechanical Outline (unit: mm)





Additional Notes

- Data in the sheet are based on C-mount package heat sink testing.
- Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- Observing visible or invisible laser beams with human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- No laser device should be used in any application or situation where life or property is at risk in the event of device failure.
- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.