



## LD808E8WK13

### High Power 808nm 8000mW FP Laser Diode in CoS Package

#### Description

The Lasermate LD808E8WK13 is a high power 808nm, 8000mW Fabry-Perot laser diode in CoS (Chip-on-Submount) package. The laser diode is suitable as laser light source for many applications.

#### Features

- 808nm Fabry-Perot cavity semiconductor laser
- Optical output power: 8000mW CW
- High output power
- Package: CoS (Chip-on-Submount)

#### Specifications (T<sub>c</sub> = 20°C)

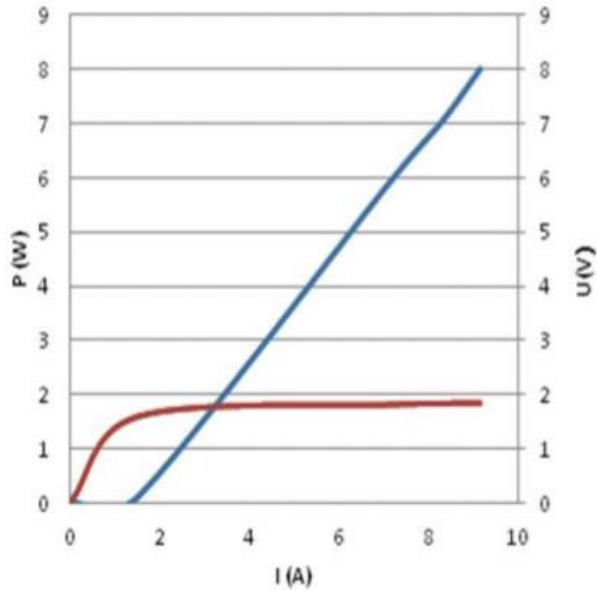
| OPTICAL CHARACTERISTICS |       |       |
|-------------------------|-------|-------|
| PARAMETER               | TYP.  | UNIT  |
| Lasing wavelength       | 808±5 | nm    |
| Output power            | 8     | W     |
| Spectral width          | ≤5    | nm    |
| Emitting area width     | 200   | um    |
| Temperature coefficient | 0.30  | nm/°C |
| Fast axis divergence    | <40   | deg   |
| Slow axis divergence    | <10   | deg   |

| ELECTRICAL CHARACTERISTICS |       |      |
|----------------------------|-------|------|
| PARAMETER                  | TYP.  | UNIT |
| Slope efficiency           | ≥1.0  | W/A  |
| Threshold current          | ≤1.8  | A    |
| Operating current          | ≤10.0 | A    |
| Operating voltage          | ≤2.0  | V    |

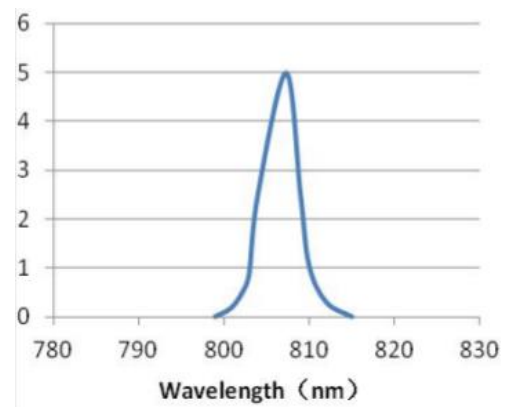
| OTHERS CHARACTERISTICS |                        |      |
|------------------------|------------------------|------|
| PARAMETER              | TYP.                   | UNIT |
| Package                | CoS (Chip-on-Submount) | -    |
| Operating temperature  | 15 to 30               | °C   |
| Storage temperature    | -40 to +60             | °C   |
| Welding temperature    | ≤260                   | °C   |

## Typical Characteristics

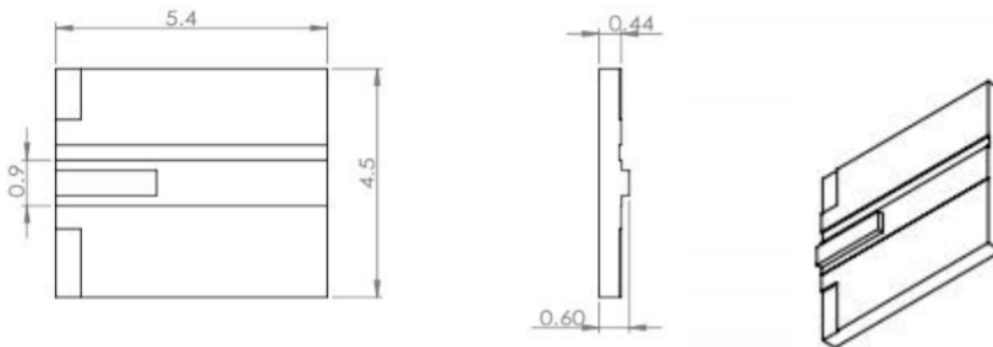
P-I-V CURVE



SPECTRAL CURVE



## Mechanical Outline (unit: mm)





#### Additional Notes

- Data in the sheet are based on CoS package 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.