830nnm 1000mW FP Laser Diode, CoS Package
LD830E1WK13

Data Sheet

Description

The Lasermate LD830E1WK13 is a high power 830nm, 1000mW Fabry-Perot laser diode in CoS (Chip-on-Submount) 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
- Package: CoS (Chip-on-Submount)

Specifications (T_C = 20°C)

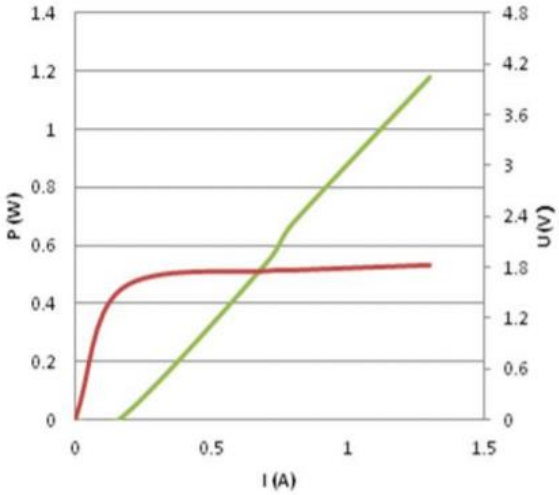
Optical Characteristics		
Parameter	Typ.	Unit
Lasing wavelength	830±10	nm
Output power	1	W
Spectral width	≤3	nm
Emitting area width	50	um
Temperature coefficient	0.30	nm/°C
Fast axis divergence	<40	deg
Slow axis divergence	<10	deg

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

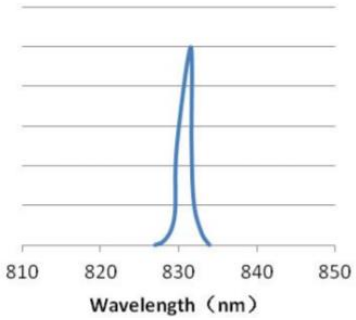
Others Characteristics		
Parameter	Typ.	Unit
Package	CoS (Chip-on-Submount)	-
Operating temperature	15 to 30	°C
Storage temperature	-40 to +60	°C
Welding temperature	≤260	°C

Typical Characteristics

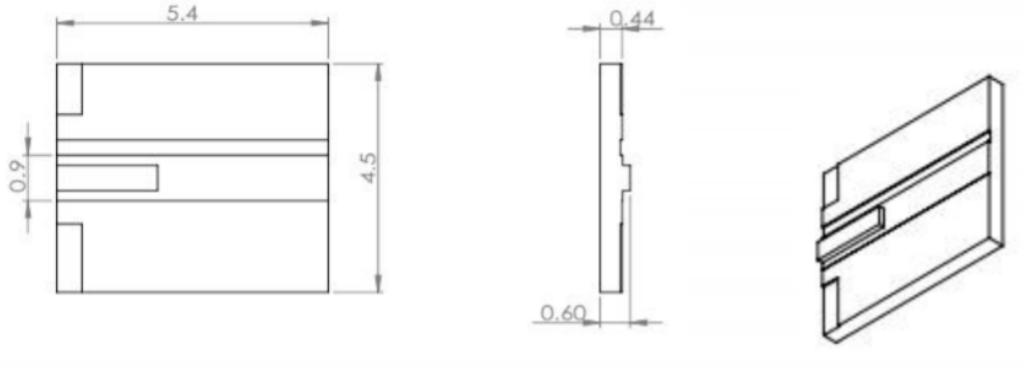
P-I-V CURVE



SPECTRAL CURVE



Mechanical Outline (unit: mm)



Additional Notes

- Data in the sheet are based on 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.