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LD808A2WD15
808nm 2000mW 50°C CW Laser Diode in ⌀9mm TO-5 Can Package

Description

The Lasermate LD808D2WD15 is an 808nm, 2000mW laser diode in a ⌀9.0mm, TO-5 can package and with operating temperature of 50°C. The laser diode is suitable as compact light source for many applications.

Features

- 808nm Infrared laser diode
- Optical output power: 2000mW CW
- Operating temperature: +50°C
- Highly reliable
- High power
- Package: TO-5, ⌀9.0mm

Applications

- Pumping for solid-state lasers and fiber lasers
- Industrial, measuring, scientific, and medical systems
- Applications in the printing industry
- Defense and security

Absolute Maximum Ratings

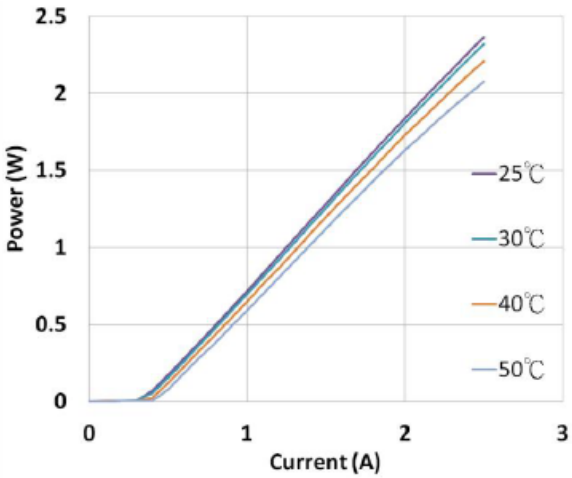
Parameter	Symbol	Rating	Unit
Optical output power	P_o	2.2	W
Reverse voltage (LD)	V_{RL}	2	V
Operating temperature	T_{opr}	-10 to +50	°C
Storage temperature	T_{stg}	-40 to +85	°C

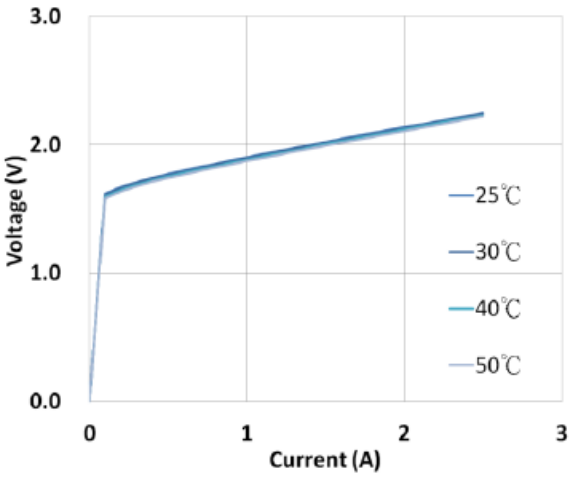
Electrical and Optical Characteristics (T_C = 25 °C)

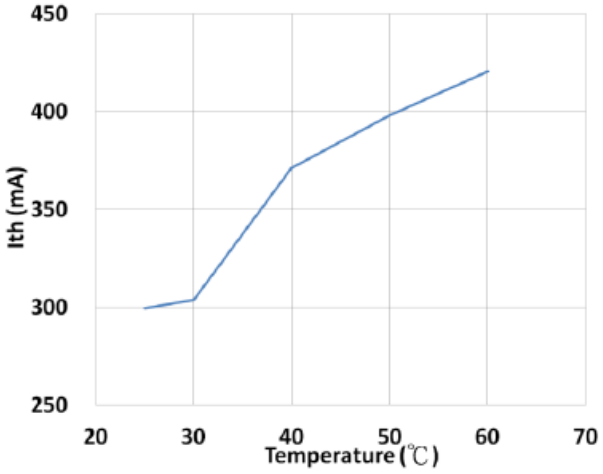
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	798	808	818	nm	P_o = 2000mW
Threshold current	I_{th}	-	320	450	mA	P_o = 2000mW
Operating current	I_{op}	-	2100	2800	mA	P_o = 2000mW
Operating voltage	V_{op}	-	2.1	3	V	P_o = 2000mW
Differential efficiency	η	0.7	1.1	1.4	mW/mA	P_o = 900-2000mW
Parallel divergence angle	$\Theta_{//}$	-	7	12	deg	P_o = 2000mW
Perpendicular divergence angle	$\Theta_{\perp}$	30	35	40	deg	P_o = 2000mW

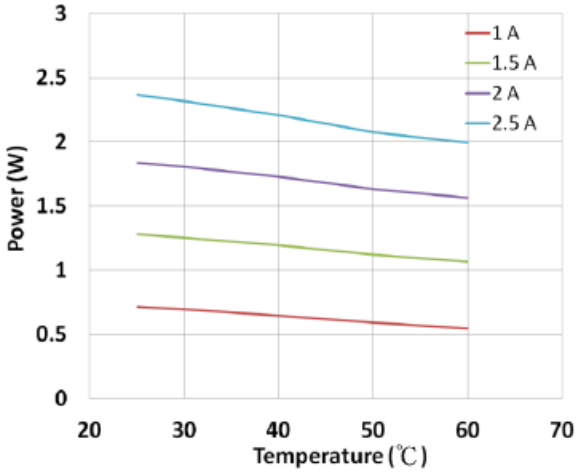
*Sufficient heat dissipation is required for CW operation.

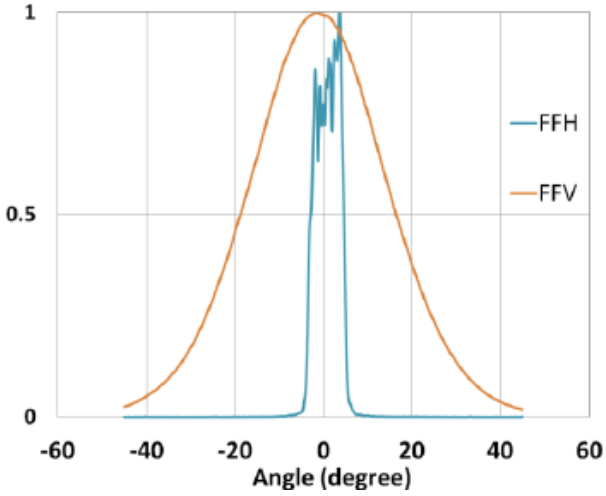
Typical Characteristics



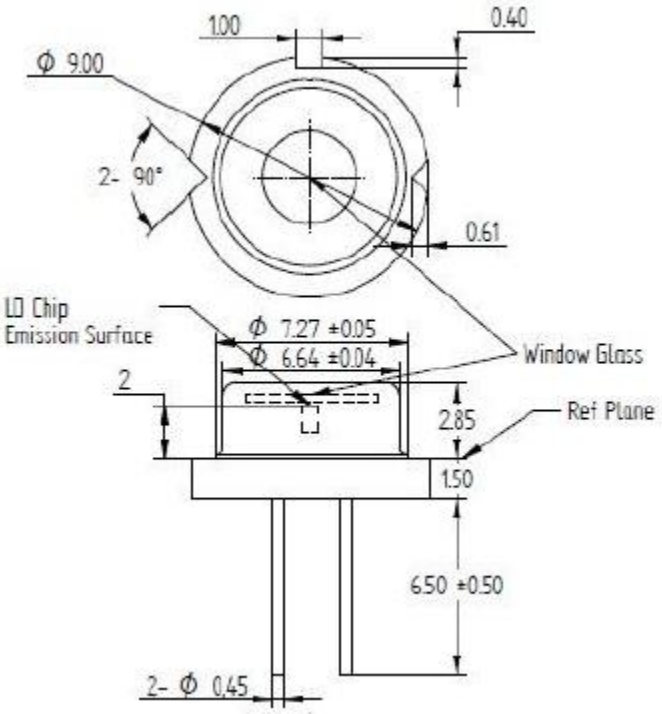


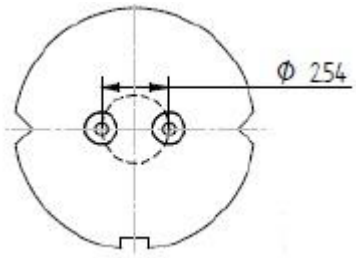






Mechanical Outline (unit: mm)





PIN CONFIGURATION

Additional Notes

- 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.