



LD808F1WC15

808nm 1000mW 50°C CW Laser Diode in ø5.6mm TO-18 Package

Description

The Lasermate LD808F1WC15 is an 808nm, 1000mW laser diode in a ø5.6mm, TO-18 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: 1000mW CW
- Operating temperature: +50°C
- High reliability
- Higher power
- Package: TO-18, ø5.6mm

Applications

- Pumping of solid-state lasers and fiber lasers
- Industrial, measurement, scientific and medical systems
- Applications in printing industry
- Defense and security

Absolute Maximum Ratings

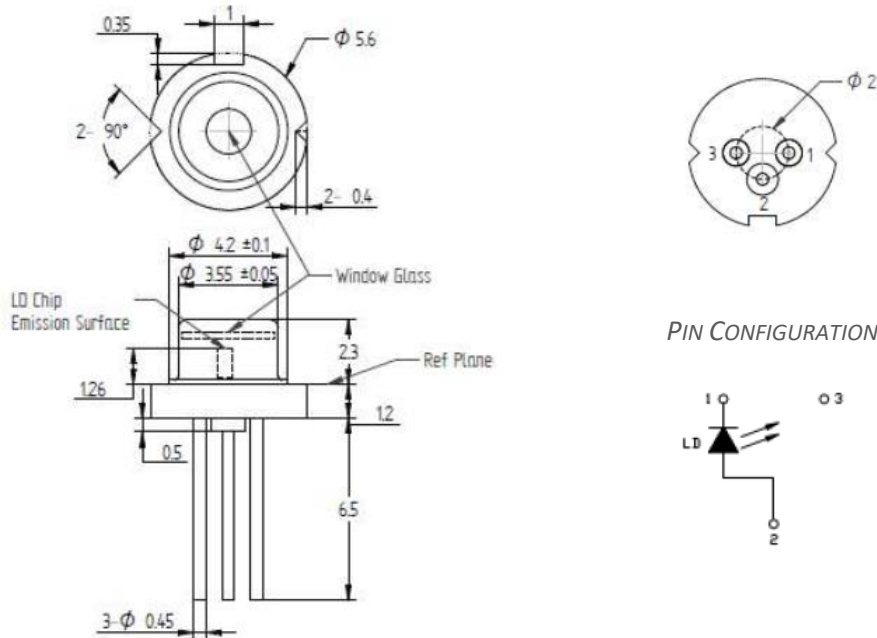
PARAMETER	SYMBOL	RATING	UNIT
Optical output power	P_O	1.2	W
Reverse voltage (LD)	V_{RL}	2	V
Operating temperature	T_{opr}	-10 to +50	°C
Storage temperature	T_{stg}	-40 to +85	°C

Electrical and Optical Characteristics ($T_c = 25\text{ }^\circ\text{C}$)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Peak wavelength	λ	798	808	818	nm	$P_O = 1W$
Threshold current	I_{th}	-	320	450	mA	$P_O = 1W$
Operating current	I_{op}	-	1200	1600	mA	$P_O = 1W$
Operating voltage	V_{op}	-	1.9	2.5	V	$P_O = 1W$
Slope efficiency	η	0.7	1.1	1.4	mW/mA	$P_O = 0.4-1.2W$
Parallel divergence angle	$\theta_{//}$	-	7	12	deg	$P_O = 1W$
Perpendicular divergence angle	θ_{\perp}	30	35	40	deg	$P_O = 1W$

*Sufficient heat dissipation is required for CW operation.

Mechanical Outline (unit: mm)



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.