



## LD808A300C14

## 808nm 300mW 40°C CW Laser Diode in ø5.6mm TO-18 Can Package

## Description

The Lasermate LD808A300C14 is an 808nm, 300mW, 40°C laser diode in a ø5.6mm, TO-can package. The laser diode is suitable as compact light source for many applications.

## Features

- 808nm Infrared Laser Diode
- Optical output power: 300mW CW
- Operating temperature: +40°C
- Multi-transverse/TE mode
- Package: TO-18, ø5.6mm

## Applications

- Solid state laser pumping
- Medical
- Distance sensor

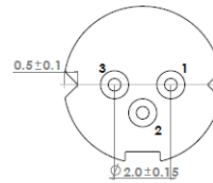
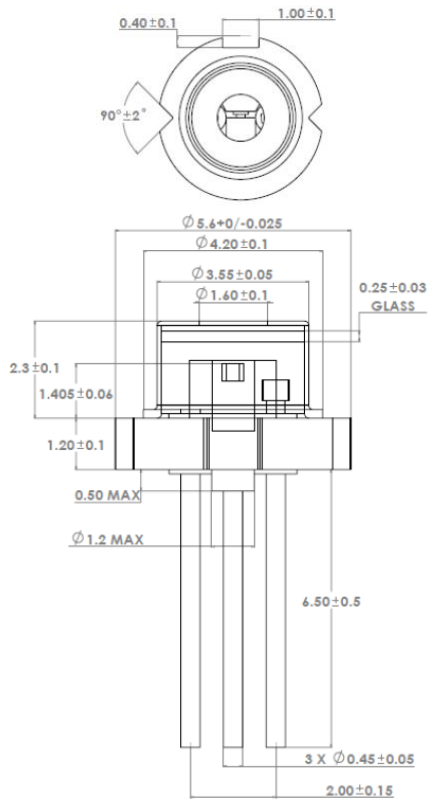
## Absolute Maximum Ratings

PARAMETER	SYMBOL	RATING	UNIT
Optical output power	$P_O$	300	mW
Reverse voltage (LD)	$V_{RL}$	2	V
Reverse voltage (PD)	$V_{RD}$	30	V
Operating temperature	$T_{opr}$	-10 to +40	°C
Storage temperature	$T_{stg}$	-40 to +85	°C

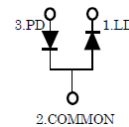
Electrical and Optical Characteristics ( $T_C = 25\text{ }^\circ\text{C}$ )

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Lasing wavelength	$\lambda$	805	808	813	nm	$P_O = 300\text{mW}$
Threshold current	$I_{th}$	-	60	90	mA	
Operating current	$I_{op}$	-	300	360	mA	$P_O = 300\text{mW}$
Operating voltage	$V_{op}$	-	1.9	2.5	V	$P_O = 300\text{mW}$
Monitor current	$I_m$	-	1.2	2.0	mA	$P_O = 300\text{mW}$
Parallel divergence angle	$\Theta_{//}$	-	8	14	deg	$P_O = 300\text{mW FWHM}$
Perpendicular divergence angle	$\Theta_{\perp}$	-	35	45	deg	$P_O = 300\text{mW FWHM}$
Parallel FFP deviation angle	$\Delta \Theta_{//}$	-3	-	+3	deg	$P_O = 300\text{mW}$
Perpendicular FFP deviation angle	$\Delta \Theta_{\perp}$	-3	-	+3	deg	$P_O = 300\text{mW}$
Optical distance	$\Delta x \Delta y \Delta z$	-60	-	+60	um	

Mechanical Outline (unit: mm)



PIN CONFIGURATION



\*Other pin configurations may be available upon request.

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.