808nm 1000mW 50°C Laser Diode in TO-18 ϕ5.6mm Package

Part No. LD808F1WC15

FEATURES

- 808nm 1W laser diode
- Package: TO-18 (5.6mm)
- High reliability
- Higher power

APPLICATIONS

- Pumping of solid-state lasers and fiber lasers
- Industrial, measuring, 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

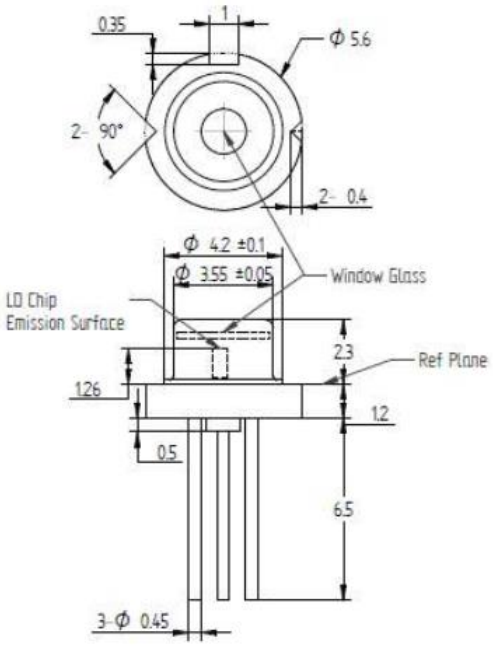
ELECTRICAL AND OPTICAL CHARACTERISTICS (T_C = 25 °C)

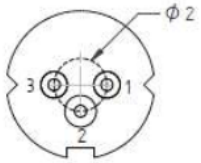
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	798	808	818	nm	P_O = 1W
Threshold current	I_{th}	-	320	450	mA	P_O = 1W
Operating current	I_{op}	-	1200	1600	mA	P_O = 1W
Operating voltage	V_{op}	-	1.9	2.5	V	P_O = 1W
Slope efficiency	η	0.7	1.1	1.4	mW/mA	P_O = 0.4-1.2W
Parallel divergence angle	$\Theta_{//}$	-	7	12	deg	P_O = 1W
Perpendicular divergence angle	$\Theta_{\perp}$	30	35	40	deg	P_O = 1W

*Sufficient heat dissipation is required for CW operation.

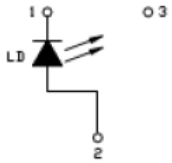
Lasermate Group, Inc.
19608 Camino De Rosa, Walnut, CA 91789, USA
Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: https://www.lasermate.com

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.

Lasermate Group, Inc.
19608 Camino De Rosa, Walnut, CA 91789, USA
Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: https://www.lasermate.com