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LD808A200C15
808nm 200mW 50°C CW Laser Diode in ⌀5.6mm TO-18 Can Package

Description

The Lasermate LD808A200C15 is an 808nm, 200mW laser diode in a ⌀5.6mm, TO-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: 200mW CW
- Operating temperature: +50°C
- High pumping efficiency
- Stable wavelength
- High reliability
- Cost effective
- Package: TO-18, ⌀5.6mm

Applications

- Pumping source for DPSS green laser
- Medical use

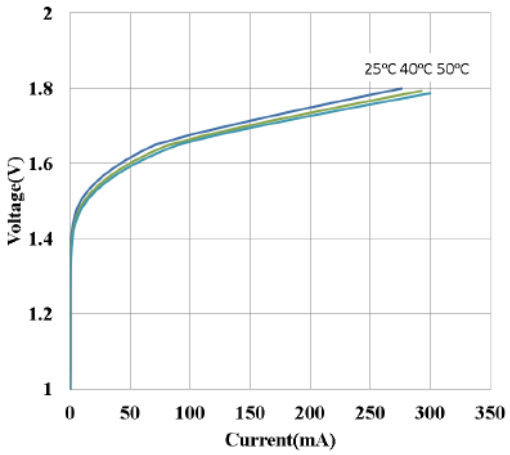
Absolute Maximum Ratings

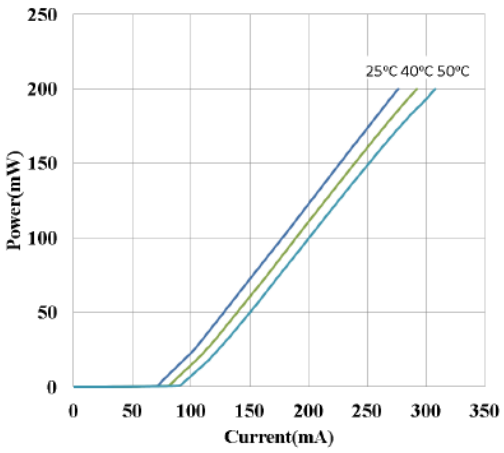
Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	200	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Reverse voltage (PD)	V_{RD}	-	30	V
Forward current	I_{FD}	-	10	mA
Case temperature	T_C	-	-10 to +50	°C
Storage temperature	T_S	-	-40 to +85	°C

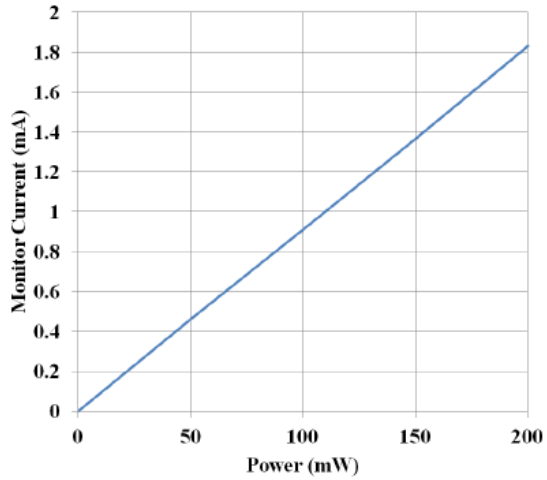
Electrical and Optical Characteristics (T_C = 25 °C)

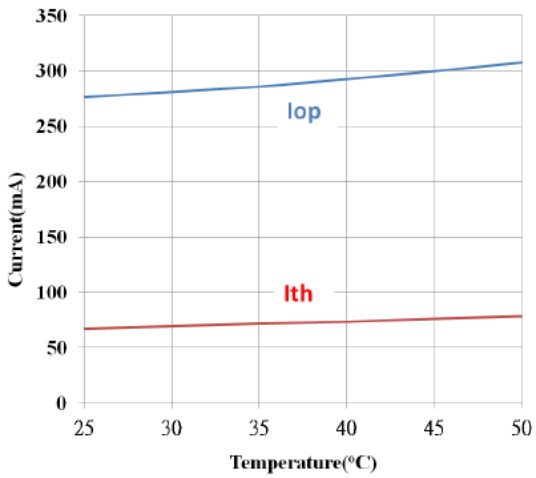
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	804	-	812	nm	P_O = 200mW
Threshold current	I_{th}	-	60	100	mA	
Operating current	I_{op}	-	260	300	mA	
Operating voltage	V_{op}	-	1.9	2.2	V	
Differential efficiency	η	0.8	1.0	-	mW/mA	P_O = 150-200mW
Monitor current	I_m	0.3	-	2.4	mA	P_O = 200mW
Parallel divergence angle	$\Theta_{//}$	-	6	11	deg	
Perpendicular divergence angle	$\Theta_{\perp}$	-	28	40	deg	
Parallel FFP deviation angle	$\Delta\Theta_{//}$	-3	0	+3	deg	
Perpendicular FFP deviation angle	$\Delta\Theta_{\perp}$	-5	0	+5	deg	
Emission point accuracy	Δx Δy Δz	-80	0	+80	um	

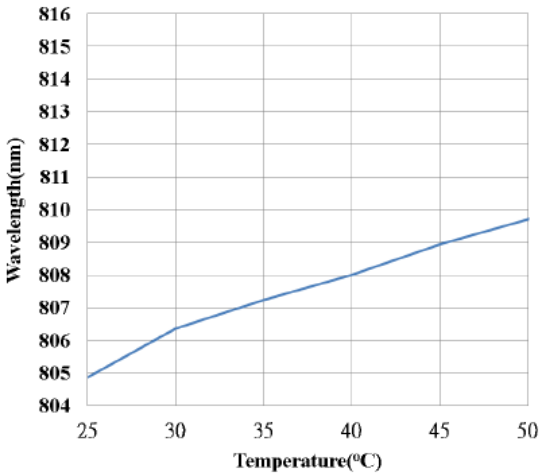
Typical Characteristics

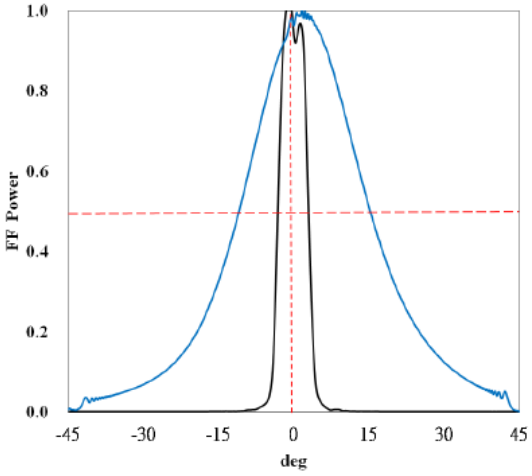




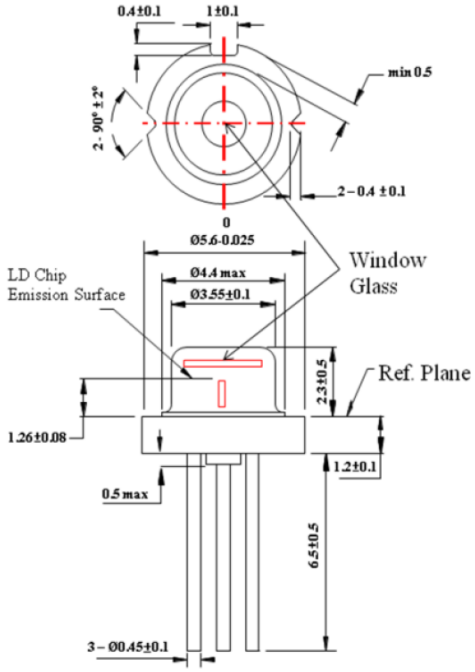


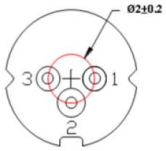




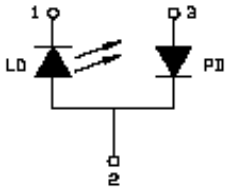


Mechanical Outline (unit: mm)





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.