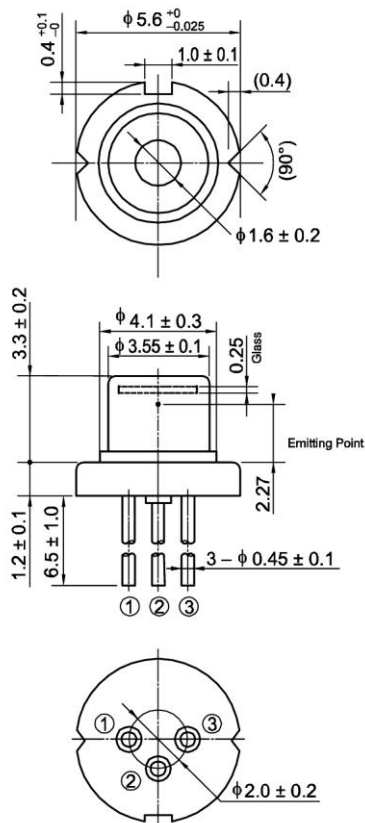


HL63133DG

AlGaInP Laser Diode

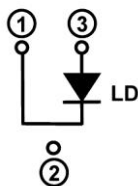
638nm/170mW

Outline



Internal Circuit

•HL63133DG



Features:

- Visible light output: 638nm Typ.
- Optical output power: 170mW (CW)
- Single transverse mode
- Low operating current: 250mA Typ.
- Low operating voltage: 2.8V Typ.
- Small package: $\phi 5.6$ mm
- TE mode oscillation

Applications

- Pico projector
- Show laser
- Light source of optical equipments

Absolute Maximum Ratings (T_c=25°C)

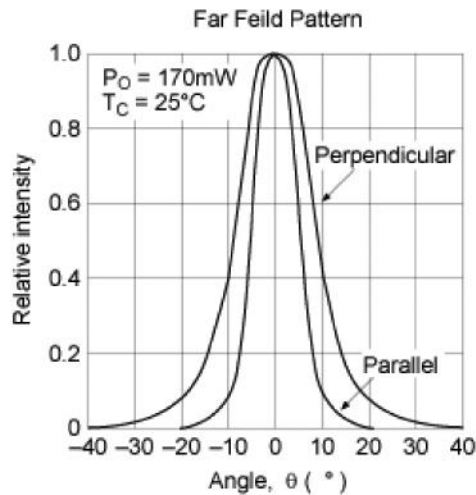
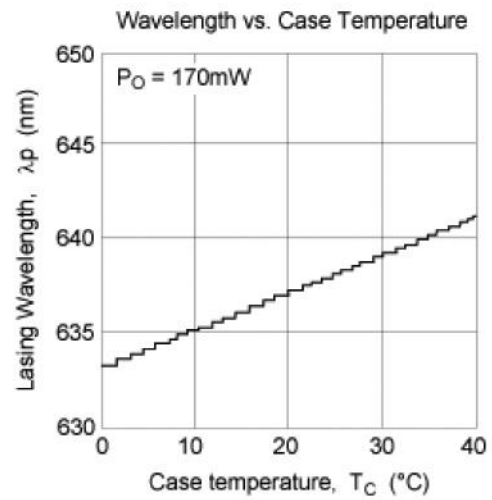
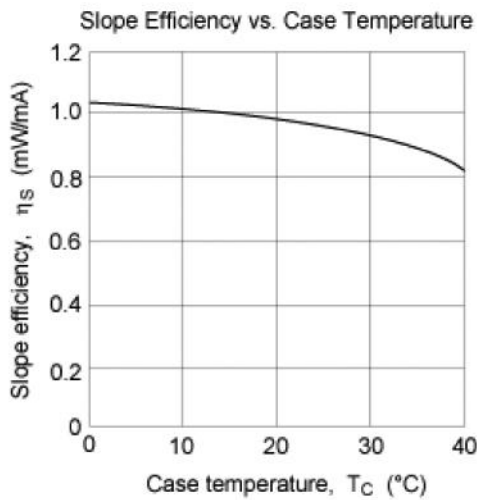
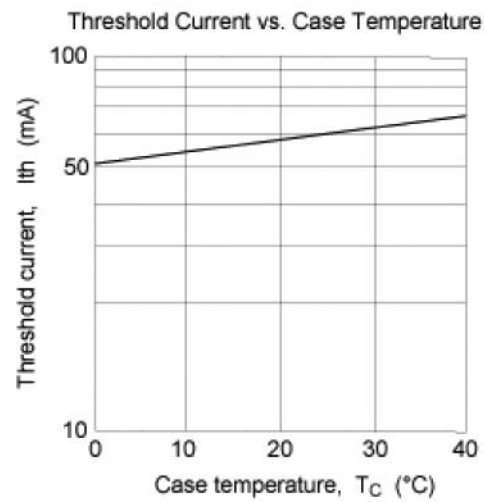
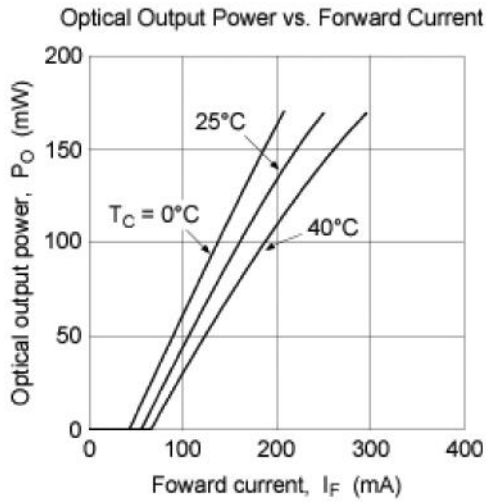
Item	Symbol	Ratings	Unit
Optical output power	P _o	170	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	T _{opr}	-10 ~ +40	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

Note: Operating temperature is defined by Case temperature "T_c". High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD's maximum operating temperature is not exceeded during actual operation.

Optical and Electrical Characteristics (T_c=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	60	90	mA	-
Operating current	I _{op}	-	250	320	mA	P _o =170mW
Operating voltage	V _{op}	-	2.8	3.2	V	P _o =170mW
Beam divergence Parallel to the junction	θ _{//}	5	9	13	°	P _o =170mW
Beam divergence Perpendicular to the junction	θ _⊥	13	17	23	°	P _o =170mW
Lasing Wavelength	λ _p	632	638	643	nm	P _o =170mW

Typical Characteristic Curves



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- 4.Design your application so that the products is used within the ranges guaranteed by OCJ. particularly for maximum rating, operating supply voltage range, heat radiation characteristics, installation conditions and other characteristics. OCJ. bears no responsibility for failure or damage when used beyond the guaranteed ranges. Even within the guaranteed ranges, consider normally foreseeable failure rates or failure modes in semiconductor devices and employ systemic measures such as fail-safes, so that the equipment incorporating OCJ product does not cause bodily injury, fire or other consequential damage due to operation of the OCJ product.
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- 7.Contact our sales office for any questions regarding this document or OCJ. products.

1.The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.

2.This product (without violet laser diode) contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product. When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.

Contact Information

www.oclaro.com

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Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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