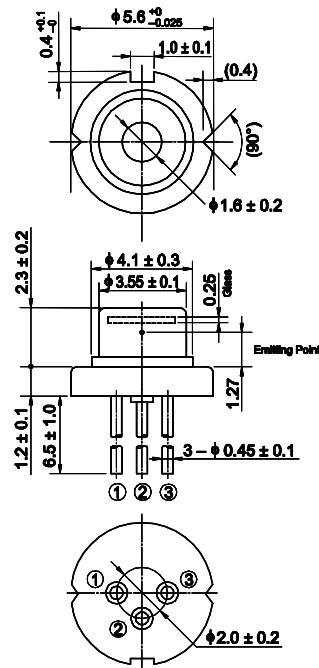


Data Sheet

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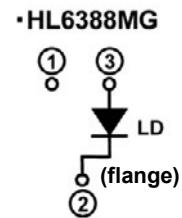
637nm / 250mW AlGaInP Laser Diode

Outline



(unit:mm)

Internal Circuit



Features

- Visible light output: 637nm Typ.
- Optical output power: 250mW (CW)
- Multi transverse mode
- High operating temperature: $+50^\circ\text{C}$
- Small package: $\phi 5.6\text{mm}$
- TM mode oscillation

Application

- Pico projector
- Laser module
- Light source of optical equipments

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	250	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

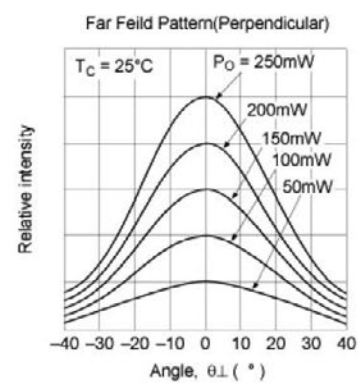
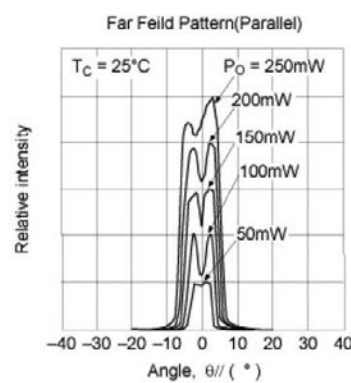
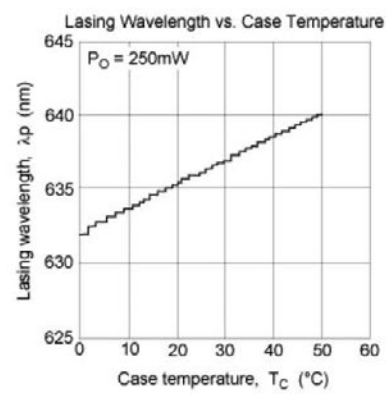
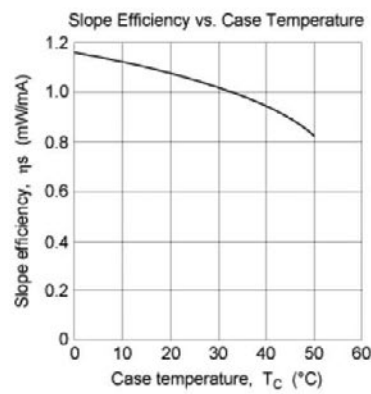
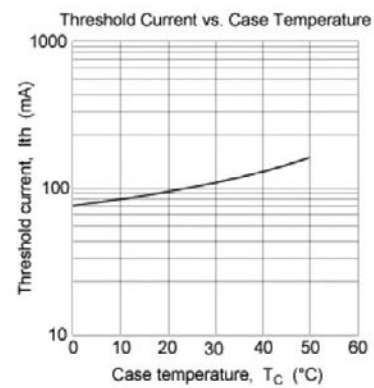
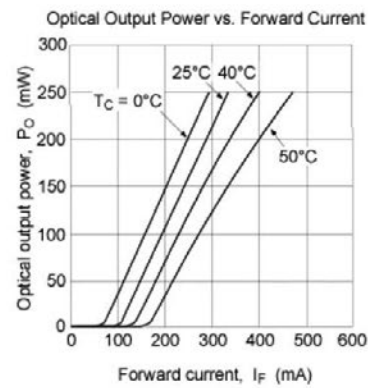
Note: Operating temperature is defined by Case temperature "Tc". High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It 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 (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	100	140	mA	-
Slope efficiency	η _s	0.7	1.05	-	mW/mA	-
Operating current	I _{op}	-	340	430	mA	Po=250mW
Operating voltage	V _{op}	-	2.3	2.8	V	Po=250mW
Beam divergence Parallel to the junction	θ _{//}	-	11	20	°	Po=250mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	30	40	50	°	Po=250mW, FWHM
Lasing Wavelength	λ _p	632	637	642	nm	Po=250mW

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Typical Characteristic Curves



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Cautions

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- 7.Contact our sales office for any questions regarding this document or UOS products.

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- 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.

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