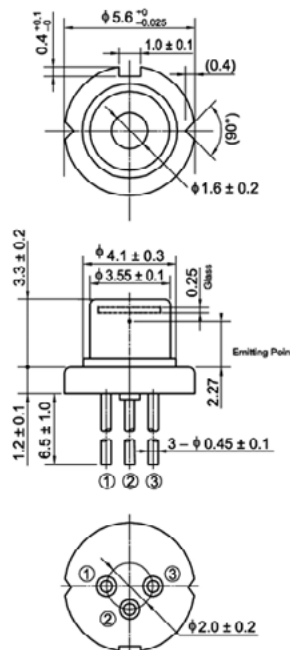


Preliminary Data Sheet

HL63583DG

639nm / 200mW AlGaInP Laser Diode

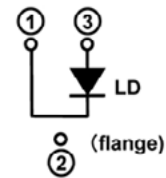
Outline



(Unit: mm)

Internal Circuit

HL63583DG



Features

- Shorter wavelength: 639nm Typ.
- High optical output power: 200mW
- Low operating current: 255mA Typ.
- Small package: $\phi 5.6$ mm
- Single transverse mode
- TE mode oscillation

Application

- Show Laser system
- Light source of optical equipment

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Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power (1) (Tc=-10~+25 °C) ^{Note1)}	Po(1)	200	mW
Optical output power (2) (Tc=+50 °C) ^{Note1)}	Po(2)	140	mW
LD Reverse Voltage	VR(LD)	2	V
Operating Temperature ^{Note1) 2)}	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Note1) Absolute maximum rating of optical output power vs. operating temperature is specified by figure.1.

Note2) 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.

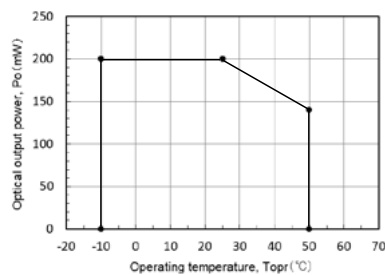


Figure.1 Optical output power vs. Operating temperature

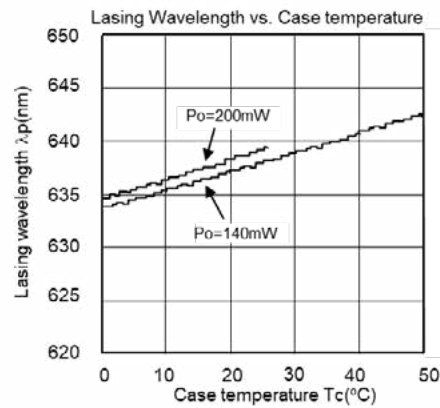
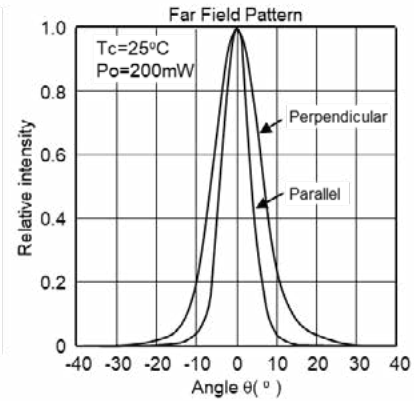
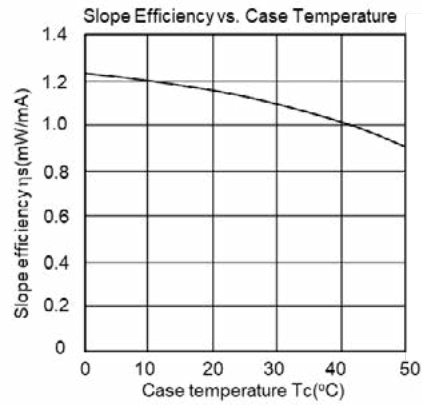
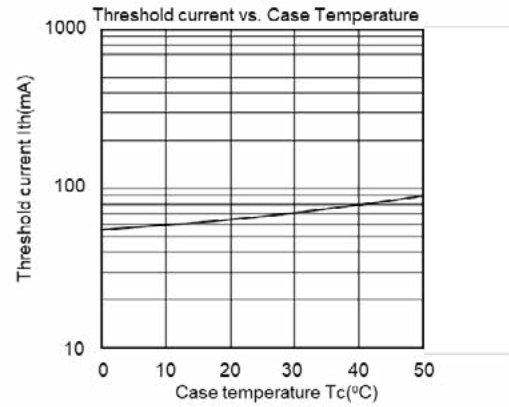
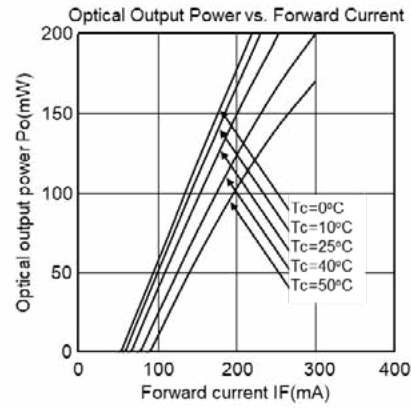
Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	65	80	mA	-
Operating current	Iop	-	255	290	mA	Po=200mW
Operating voltage	Vop	-	2.8	3.3	V	Po=200mW
Beam divergence Parallel to the junction	θ//	5	8.5	13	°	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	10	14	18	°	Po=200mW, FWHM
Lasing Wavelength	λp	633	639	643	nm	Po=200mW

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Typical Characteristic Curves



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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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