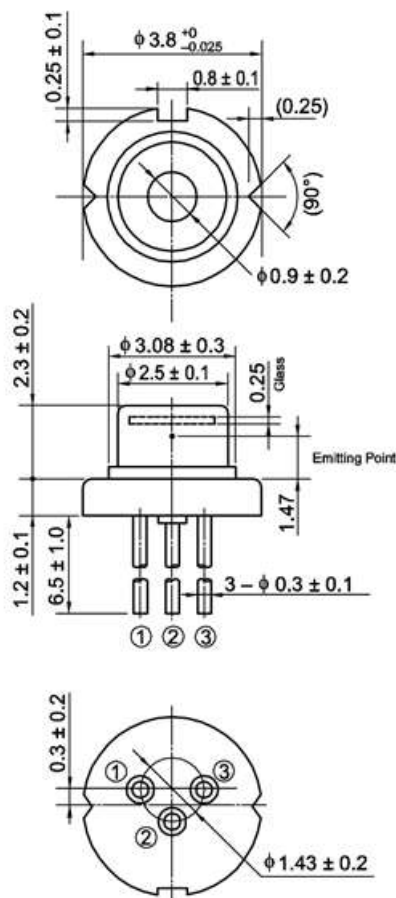


HL63653TG

640nm / 210mW AlGaInP Laser Diode

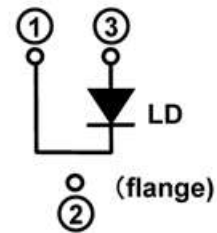
Outline



(Unit: mm)

Internal Circuit

HL63653TG



Features

- Visible light output: 640nm Typ.
- Optical output power: 210mW (CW)
- Single transverse mode
- Low operating current: 230mA at 200mW
- High Wall plug efficiency: 32%
- Small package: $\phi 3.8$ mm

Application

- Small projector
- Laser module
- Leveler

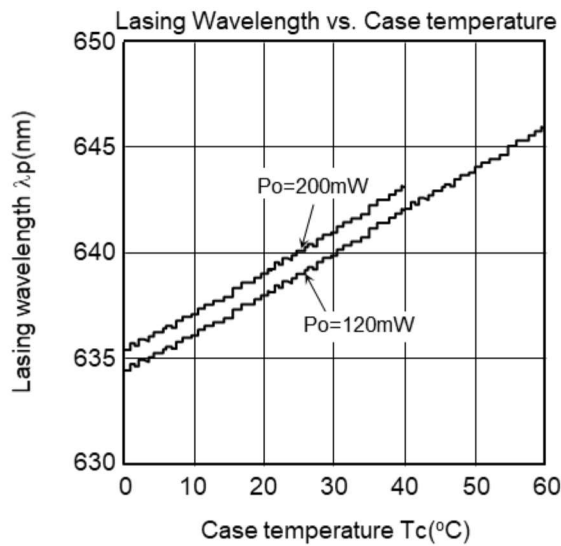
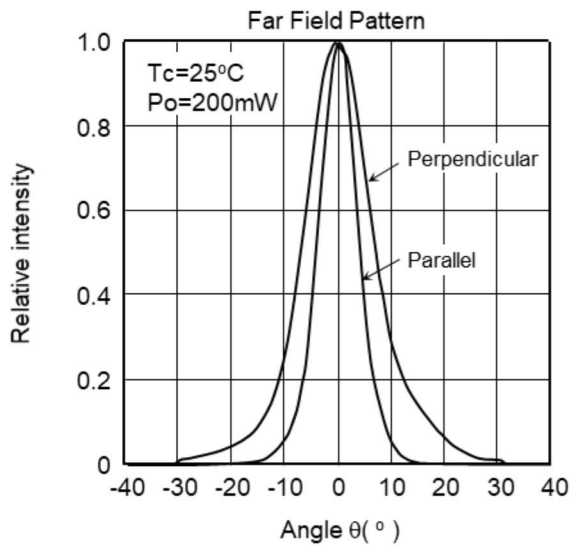
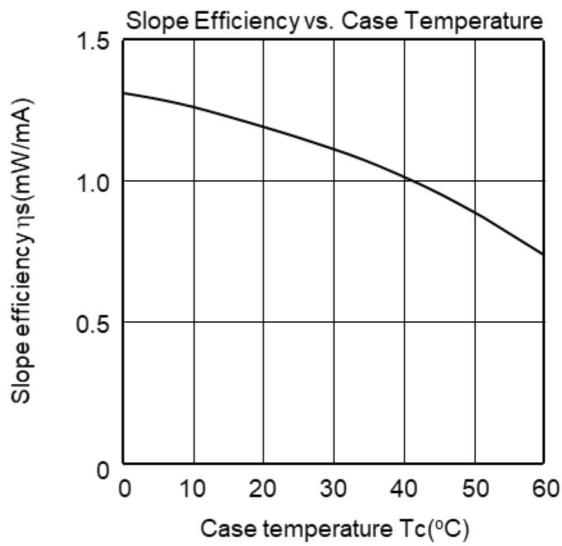
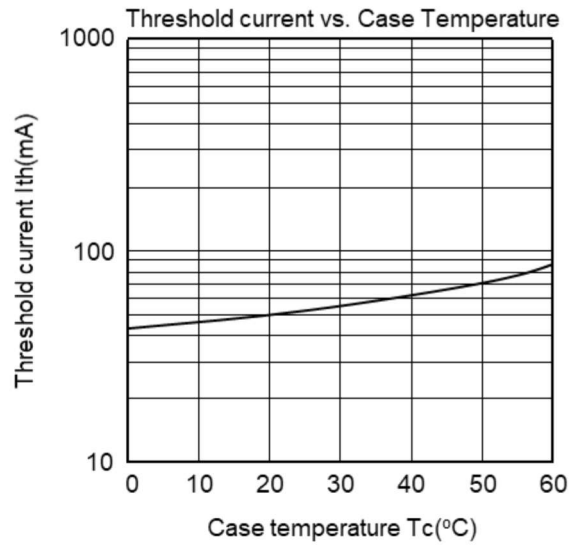
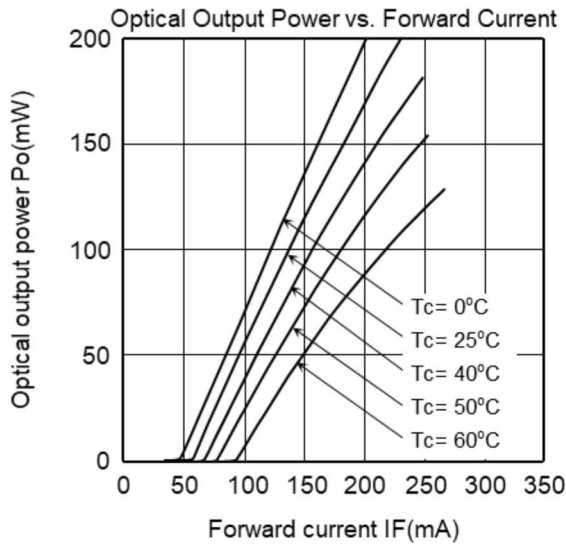
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power(1) (25°C)	Po (1)	210	mW
Optical output power(2) (60°C)	Po (2)	120	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	50	70	mA	-
Operating current	I _{op}	-	230	260	mA	Po=200mW
Operating voltage	V _{op}	-	2.7	3.0	V	Po=200mW
Beam divergence Parallel to the junction	θ _{//}	5	8	13	°	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	10	14	18	°	Po=200mW, FWHM
Lasing Wavelength	λ _p	635	640	645	nm	Po=200mW

Typical Characteristic Curves



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- 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.

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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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