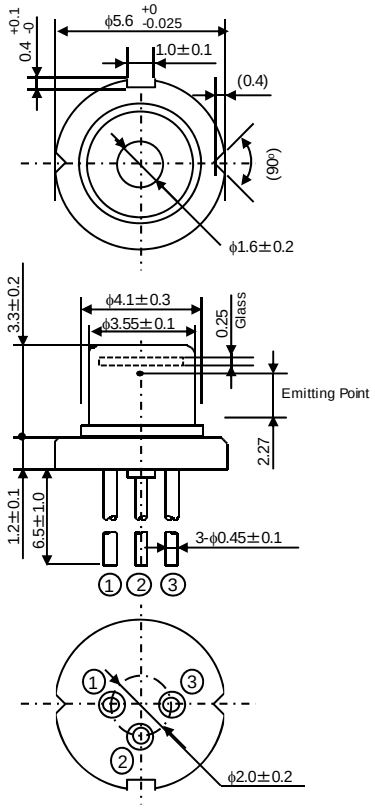
USHIO

Data Sheet

HL63263DG

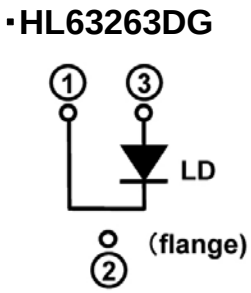
638nm／200mW　AlGaInP Laser Diode

Outline



(Unit: mm)

Internal Circuit



Features

- Shorter wavelength: 638nm Typ.
- High optical output power: 200mW
- Low operating current: 280mA Typ.
- Small package: ϕ5.6mm
- Single transverse mode
- TE mode oscillation

Application

- Show Laser system
- Light source of optical equipment

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power (1) (Tc=-10~+30 °C) Note1)	Po(1)	200	mW
Optical output power (2) (Tc=+40 °C) Note1)	Po(2)	180	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
Operating Temperature Note1) 2)	Topr	-10 ~ +40	°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.

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	75	100	mA	-
Operating current	Iop	-	280	330	mA	Po=200mW
Operating voltage	Vop	-	2.9	3.3	V	Po=200mW
Beam divergence Parallel to the junction	θ//	5	8	11	o	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	10	14	18	o	Po=200mW, FWHM
Lasing Wavelength	λp	633	638	643	nm	Po=200mW

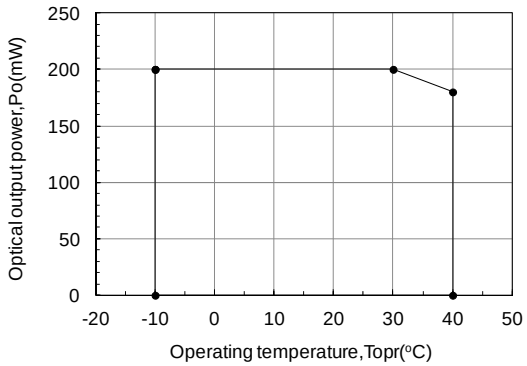
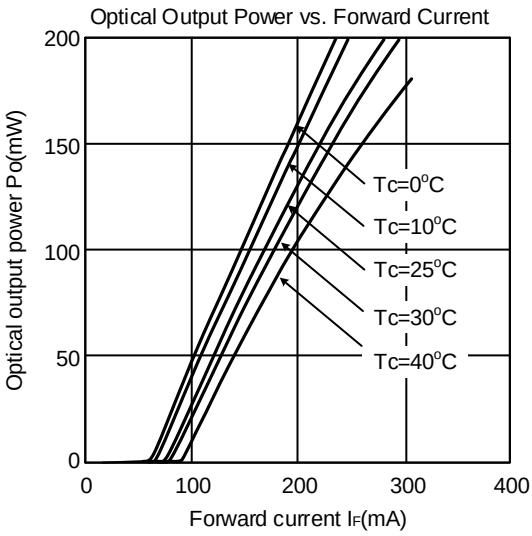
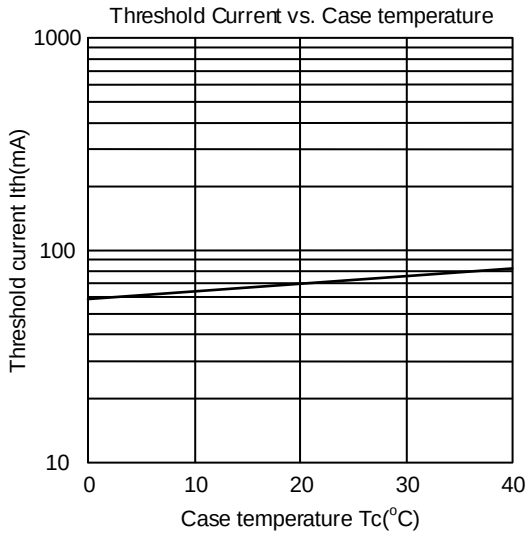
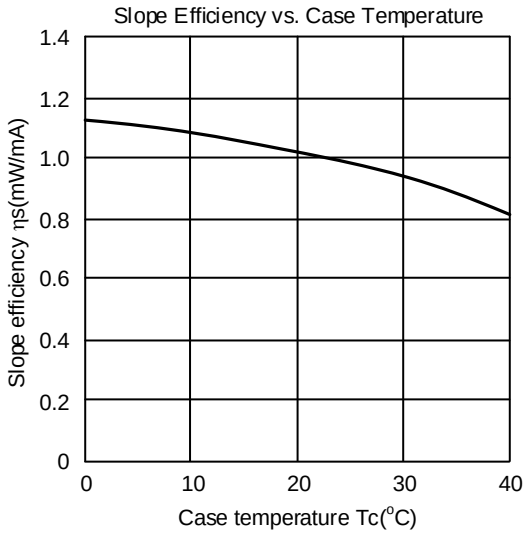


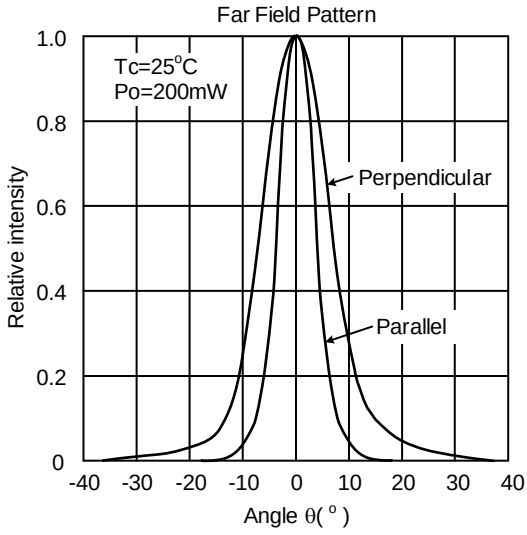
Figure.1 Optical output power vs. Operating temperature

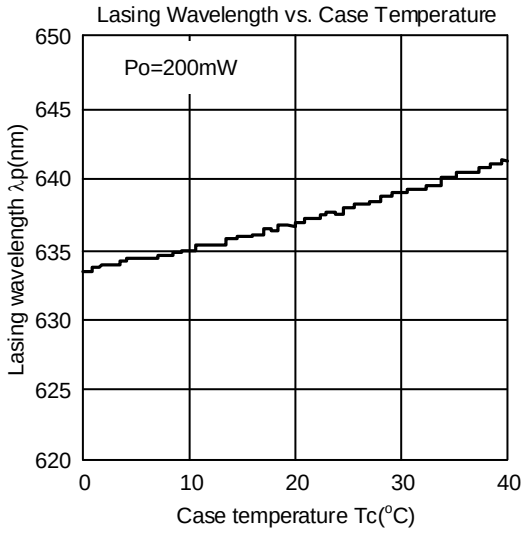
Typical Characteristic Curves











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