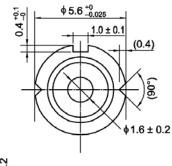
Data Sheet

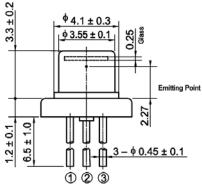
HL63133DG

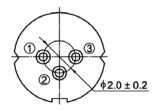
638nm / 170mW AlGaInP Laser Diode

USHIO

Outline



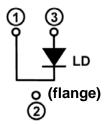




(unit:mm)

Internal Circuit





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: \$5.6mm
- TE mode oscillation

Application

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



Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	170	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	Topr	-10 ~ +40	°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 degration. 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.

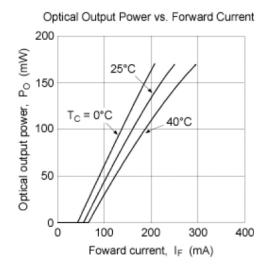
Optical and Electrical Characteristics (Tc=25°C)

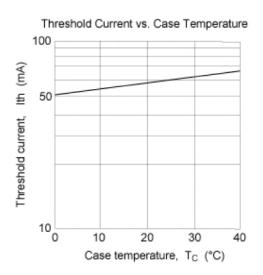
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	-	60	90	mA	-
Operating current	lop	-	250	320	mA	Po=170mW
Operating voltage	Vop	-	2.8	3.2	V	Po=170mW
Beam divergence Parallel to the junction	θ//	5	9	13	0	Po=170mW, FWHM
Beam divergence Perpendicular to the junction	θΤ	13	17	23	0	Po=170mW, FWHM
Lasing Wavelength	λр	632	638	643	nm	Po=170mW

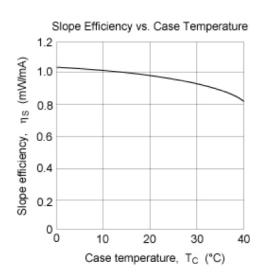
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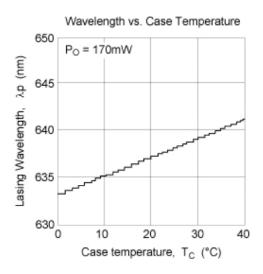


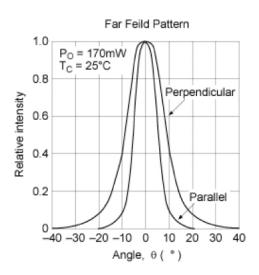
Typical Characteristic Curves











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