

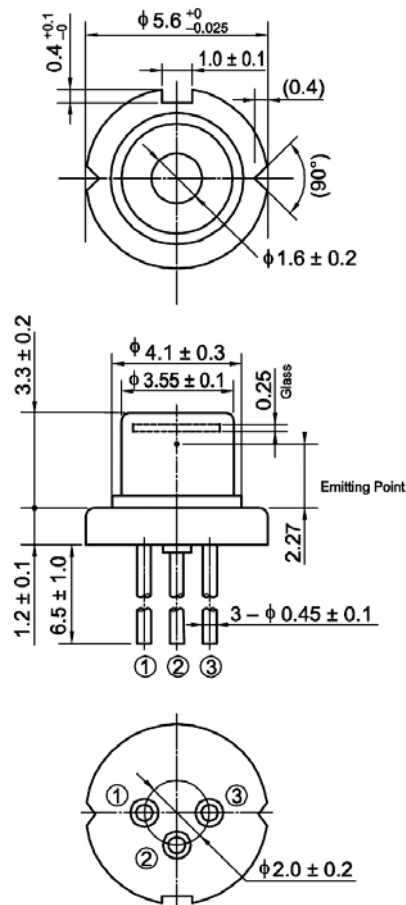
# Data Sheet

# HL63142DG

637nm / 120mW AlGaInP Laser Diode

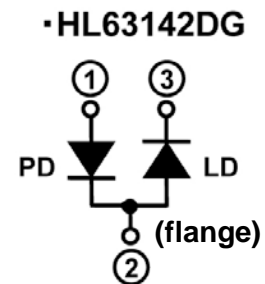
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## Outline



(unit:mm)

## Internal Circuit



## Features

- Visible light output: 637nm Typ.
- Optical output power: 120mW (CW)
- Single transverse mode
- Low operating current: 140mA Typ.
- Low operating voltage: 3.0V Max.
- Operating temperature: +50°C
- TE mode oscillation

## Application

- Laser module
- Light source of optical equipments

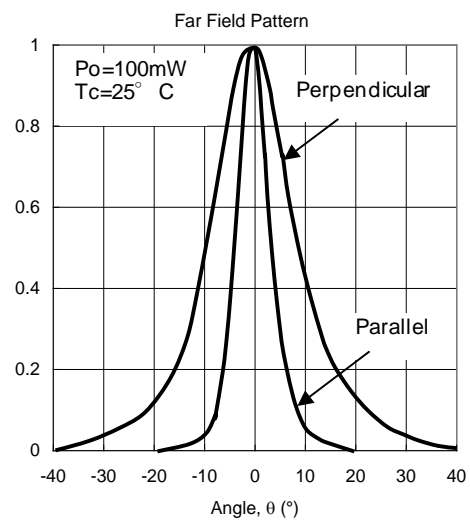
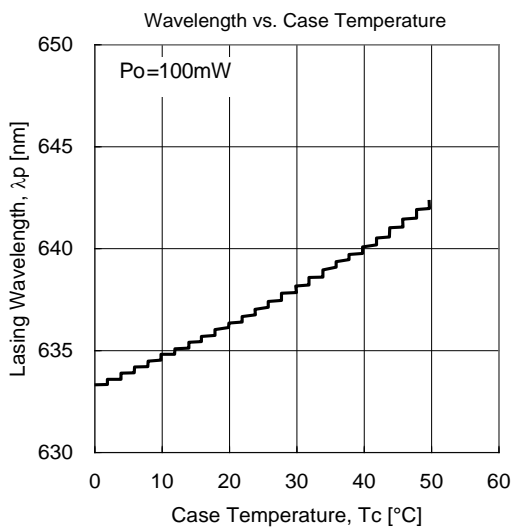
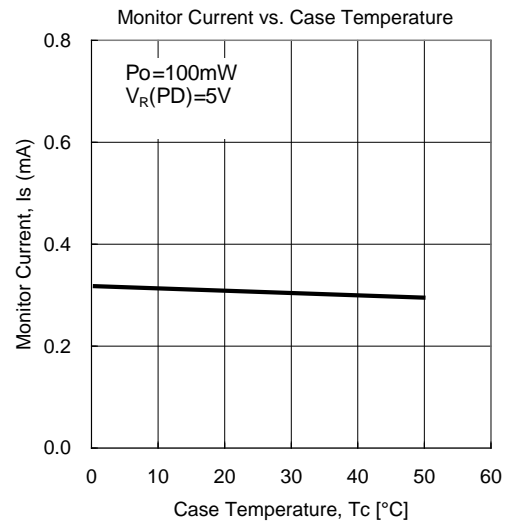
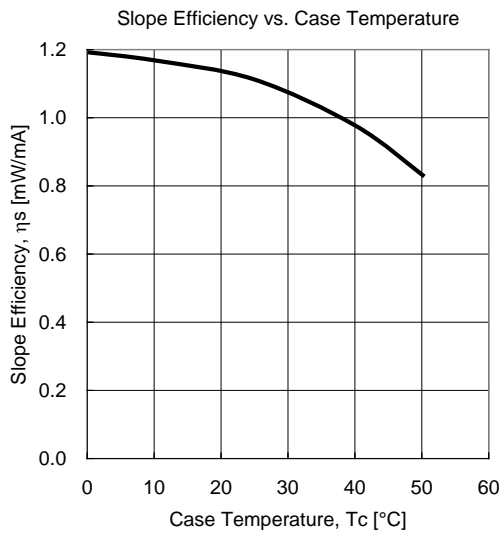
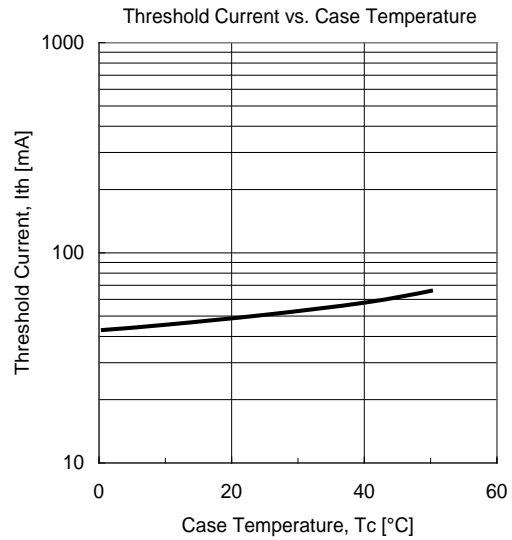
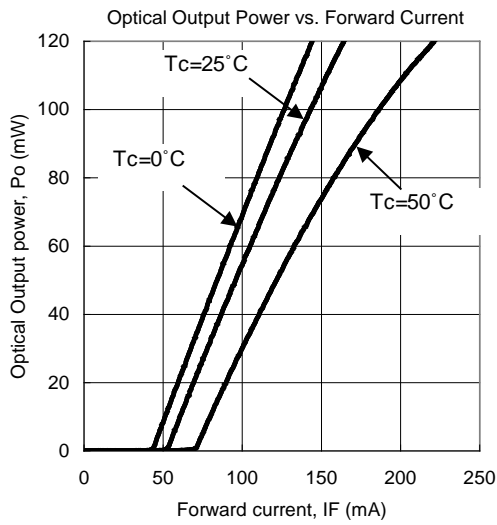
## Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	120	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	Topr	-10 ~ +50	°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 <sub>th</sub>	-	50	65	mA	-
Operating current	I <sub>op</sub>	-	140	180	mA	Po=100mW
Operating voltage	V <sub>op</sub>	-	2.7	3.0	V	Po=100mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	5	8	13	°	Po=100mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	13	18	23	°	Po=100mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	632	637	642	nm	Po=100mW
Monitor Current	I <sub>s</sub>	0.1	0.3	0.6	mA	Po=100mW, V <sub>R(PD)</sub> =5V

## Typical Characteristic Curves



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