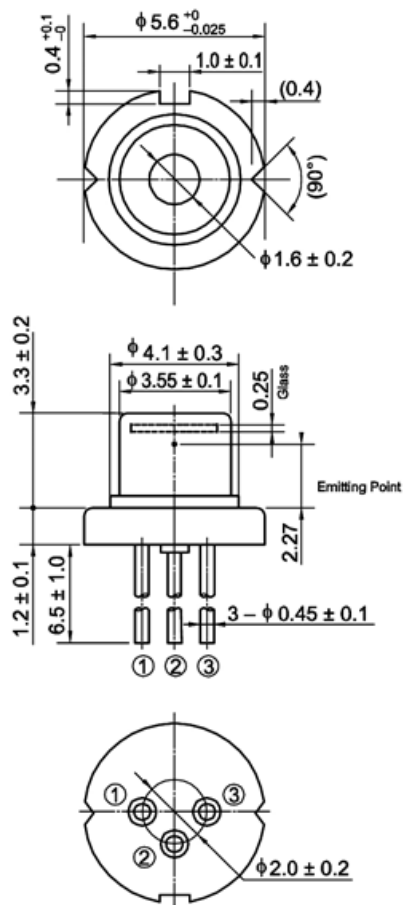


HL63142DG

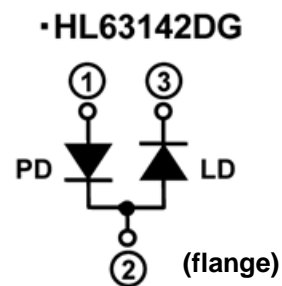
637nm / 120mW AlGaInP Laser Diode

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

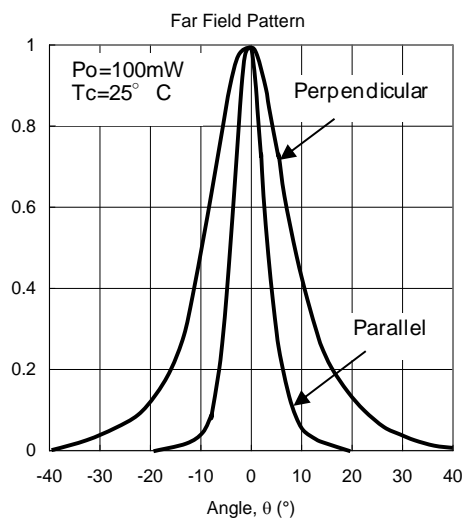
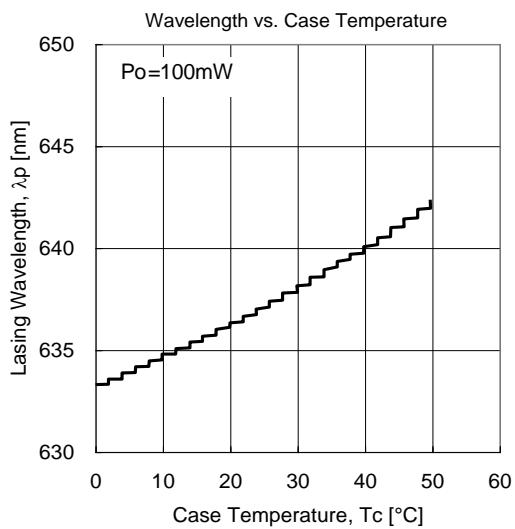
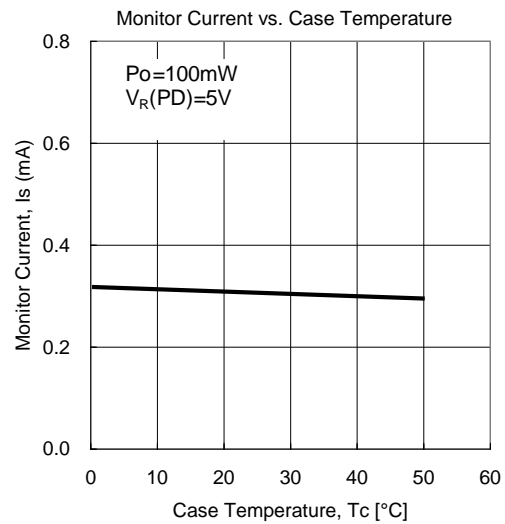
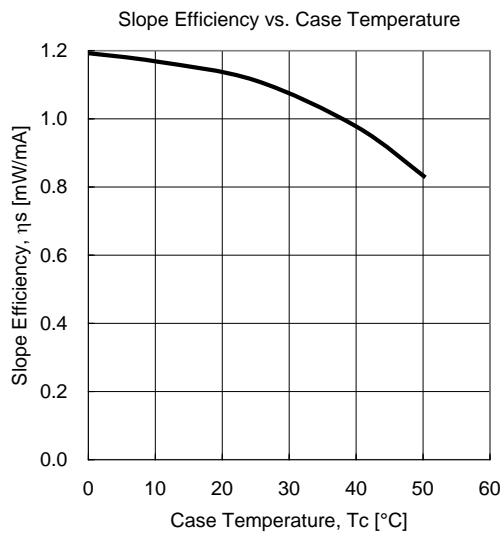
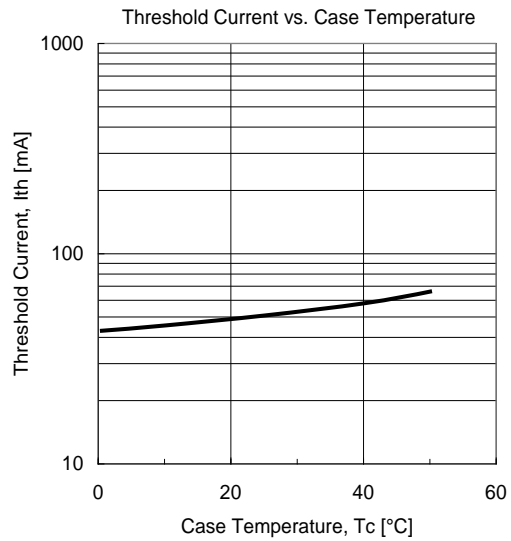
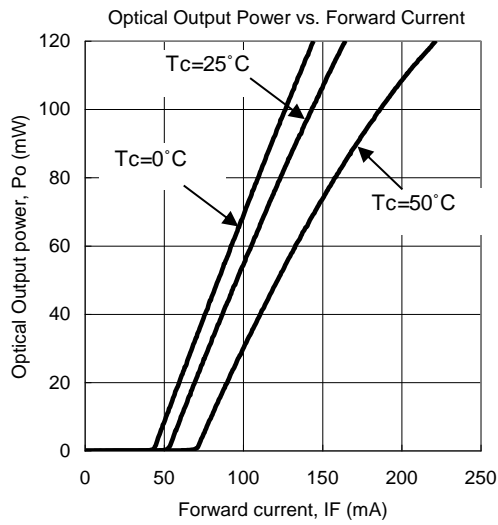
Absolute Maximum Ratings (Tc=25°C)

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

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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