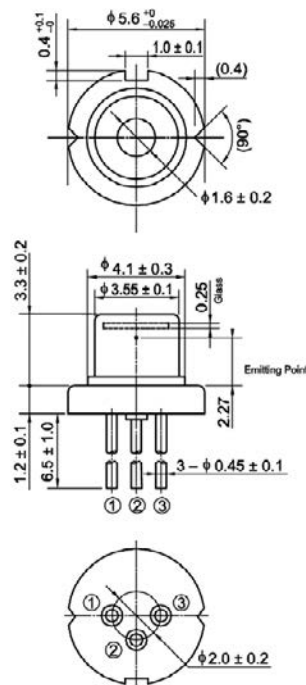


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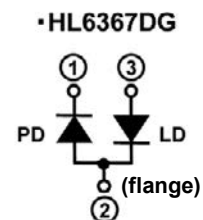
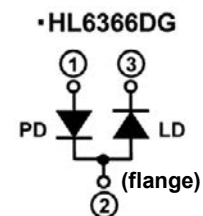
642nm / 90mW AlGaInP Laser Diode

Outline



(unit:mm)

Internal Circuit



Features

- Visible light output: 642nm Typ.
- Optical output power: 80mW (CW)
- Single transverse mode
- Low operating current: 155mA Typ.
- Low operating voltage: 2.7V Max.
- Operating temperature: +50°C
- TE mode oscillation

Application

- Laser module
- Light source of optical equipments

Absolute Maximum Ratings (Tc=25°C)

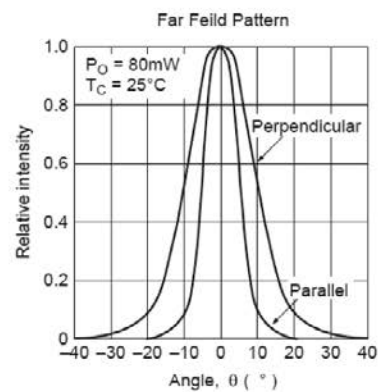
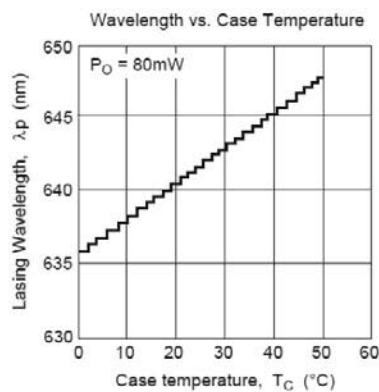
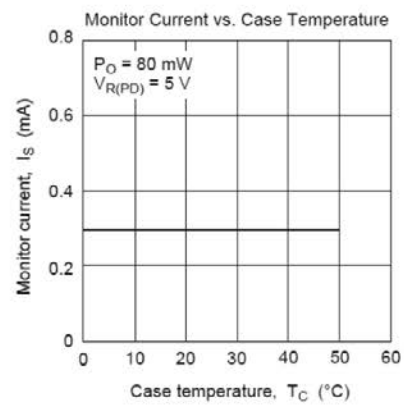
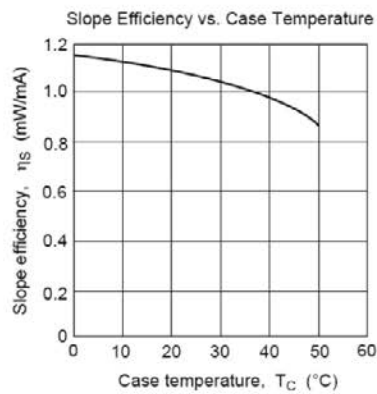
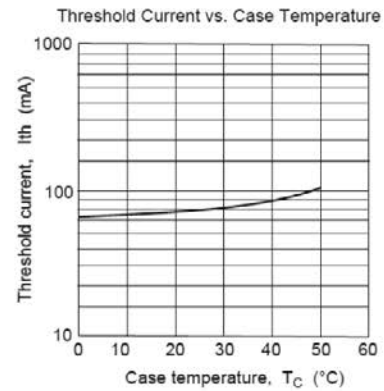
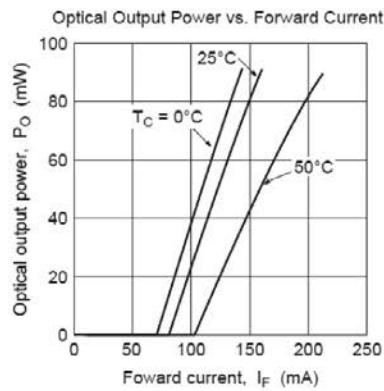
Item	Symbol	Ratings	Unit
Optical output power	Po	90	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	80	95	mA	-
Operating current	I _{op}	-	155	175	mA	Po=80mW
Operating voltage	V _{op}	-	2.5	2.7	V	Po=80mW
Beam divergence Parallel to the junction	θ _{//}	7	10	13	°	Po=80mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	16	21	24	°	Po=80mW, FWHM
Lasing Wavelength	λ _p	635	642	645	nm	Po=80mW
Monitor Current	I _s	0.1	0.3	0.5	mA	Po=80mW, V _{R(PD)} =5V

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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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