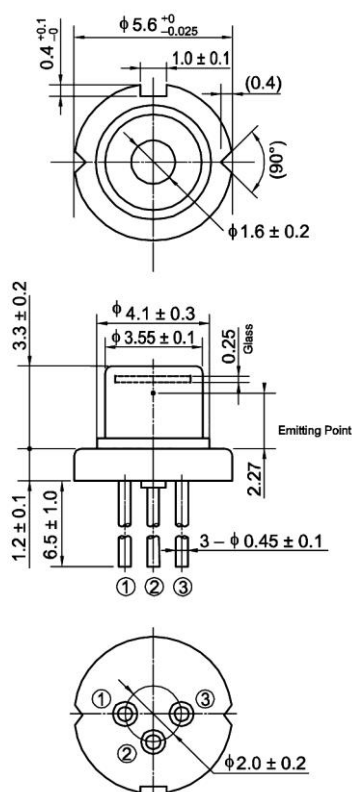


## HL6366DG-A/67DG-A

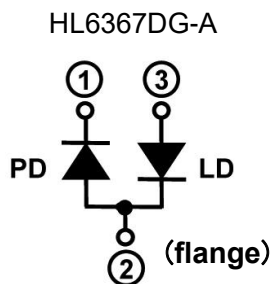
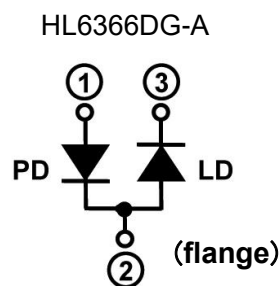
642nm / 90mW    AlGaInP Laser Diode

### 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)**

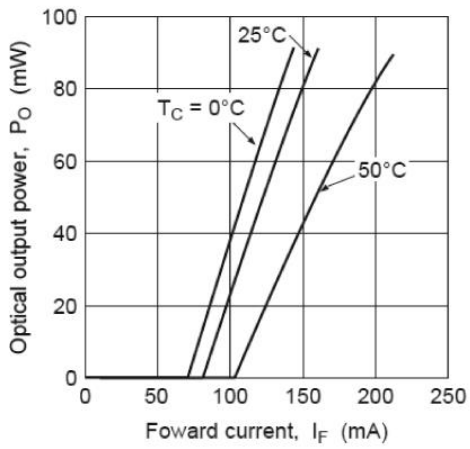
Item	Symbol	Ratings	Unit
Optical output power	Po	90	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

**Optical and Electrical Characteristics (Tc=25°C)**

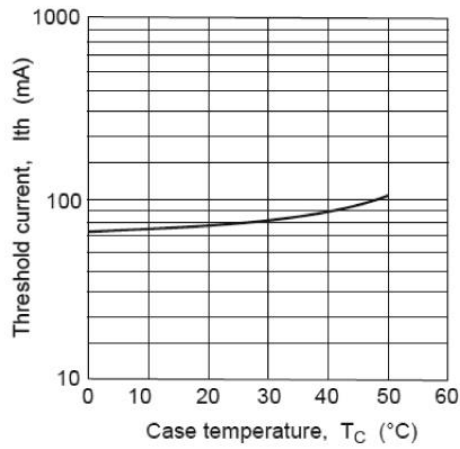
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	80	95	mA	-
Operating current	I <sub>op</sub>	-	155	175	mA	Po=80mW
Operating voltage	V <sub>op</sub>	-	2.5	2.7	V	Po=80mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	7	10	13	°	Po=80mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	16	21	24	°	Po=80mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	635	642	645	nm	Po=80mW
Monitor Current	I <sub>s</sub>	0.1	0.3	0.6	mA	Po=80mW, V <sub>R(PD)</sub> =5V

## Typical Characteristic Curves

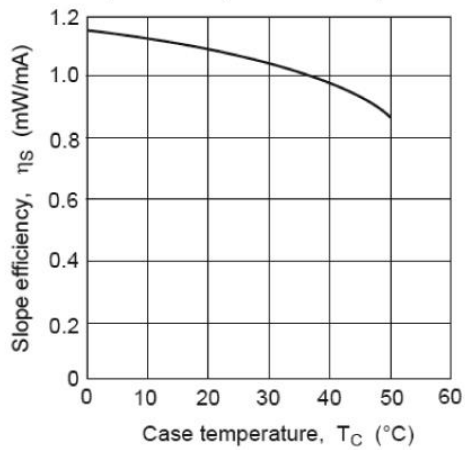
Optical Output Power vs. Forward Current



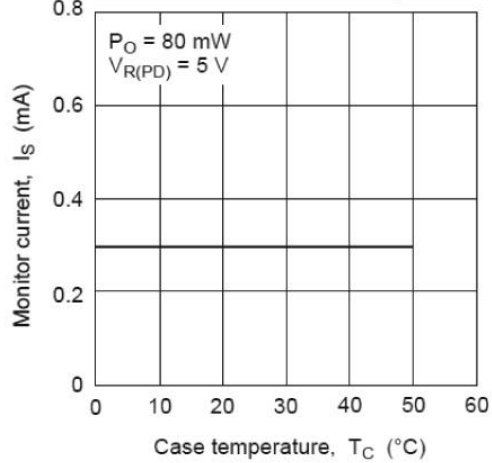
Threshold Current vs. Case Temperature



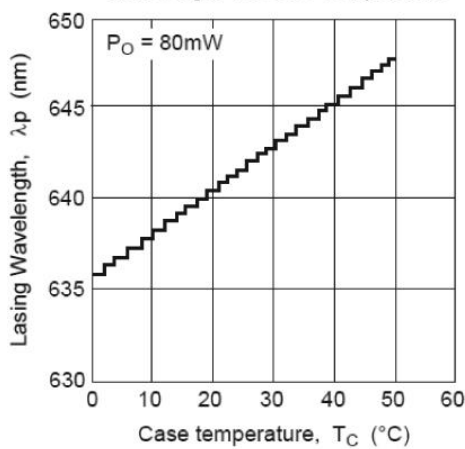
Slope Efficiency vs. Case Temperature



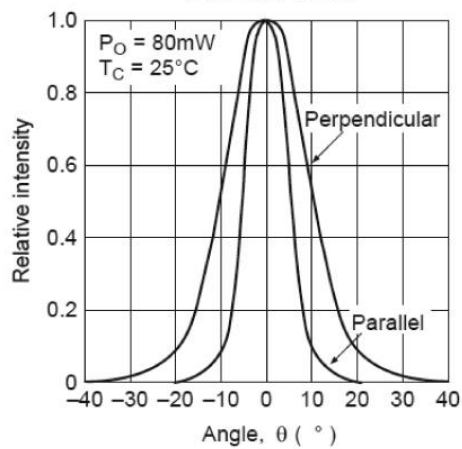
Monitor Current vs. Case Temperature



Wavelength vs. Case Temperature



Far Field Pattern



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