

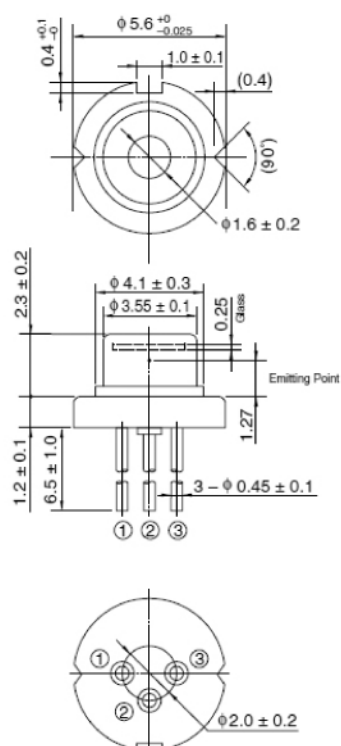
Data Sheet

HL6738MG

690nm / 35mW AlGaInP Laser Diode

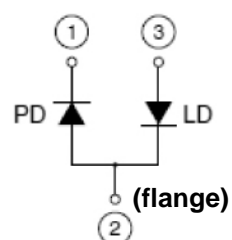
USHIO

Outline



(Unit:mm)

Internal Circuit



Features

- Operation temperature: $-10 \sim +70^\circ\text{C}$
- Optical output power: 30mW(CW)
- Visible lasing: 690nm Typ.($P_o=30\text{mW}$)
- Low operating voltage: 2.8V Max.
- Package: $\phi 5.6\text{mm}$
- Single transverse mode
- TE mode oscillation

Application

- Measurement
- Laser Module
- Sensing

Absolute Maximum Ratings (Tc=25°C)

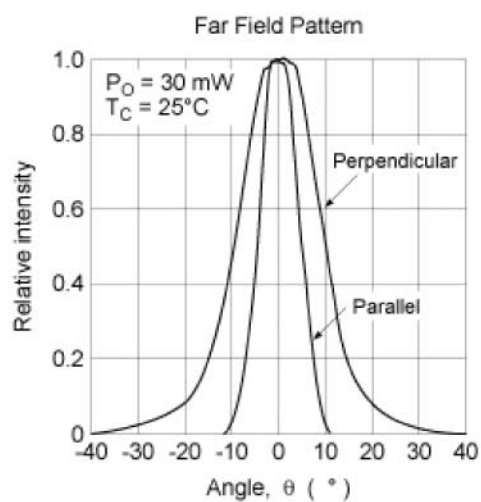
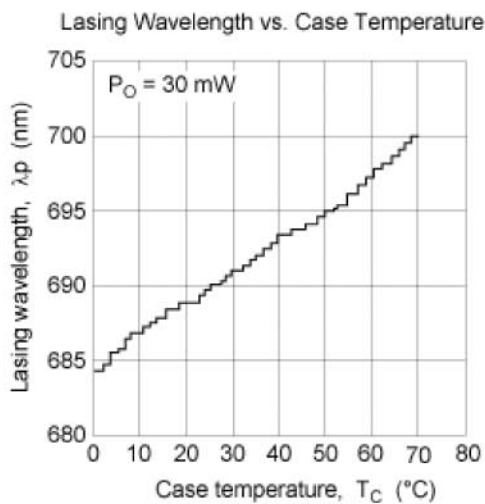
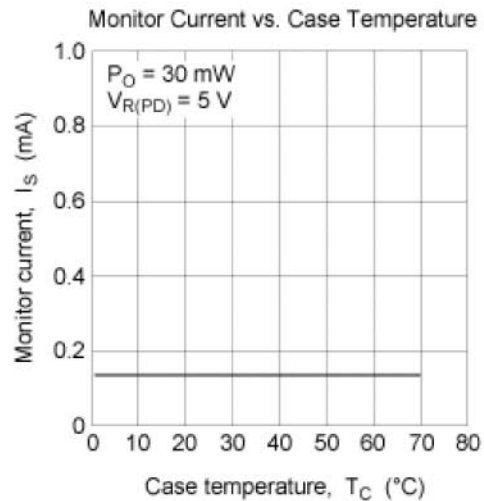
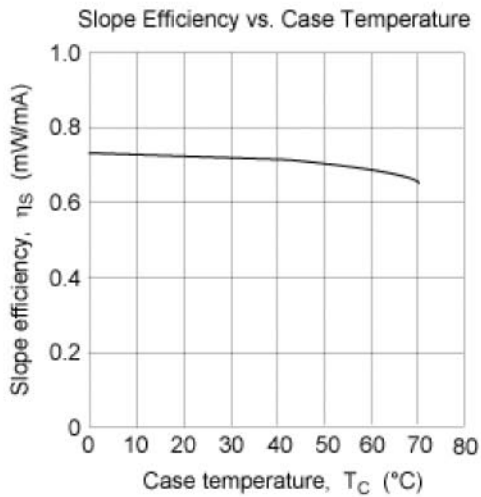
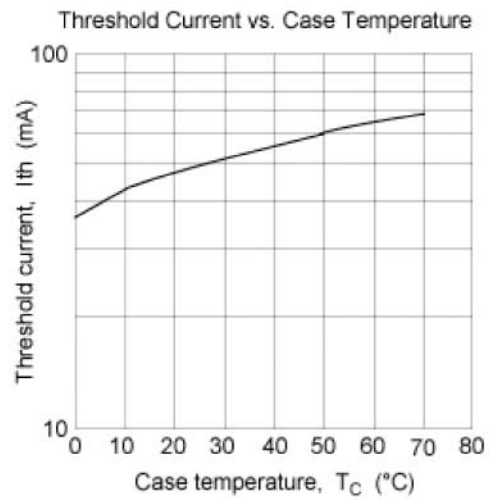
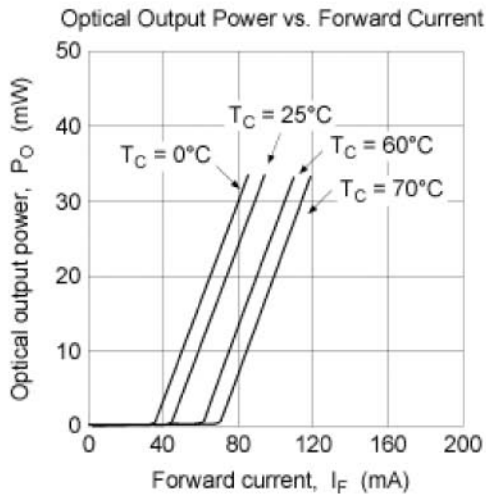
Item	Symbol	Ratings	Unit
Optical output power	P _o	35	mW
Pulse optical output power	P _{o(pulse)}	50*	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	T _{opr}	-10 ~ +70	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

* Pulse condition: Pulse width≤4μs, duty≤50%

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	30	45	70	mA	-
Operating voltage	V _{op}	2.1	2.5	2.8	V	P _o =30mW
Slope efficiency	η _s	0.5	0.7	0.9	mW/mA	18(mW)/(I _(24mW) -I _(6mW))
Beam divergence Parallel to the junction	θ _{//}	7	8.5	10.5	°	P _o =30mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	17	19	23	°	P _o =30mW, FWHM
Lasing Wavelength	λ _p	680	690	695	nm	P _o =30mW
Monitor Current	I _s	0.02	0.10	0.45	mA	P _o =30mW, V _{R(PD)} =5V

Typical Characteristic Curves



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