

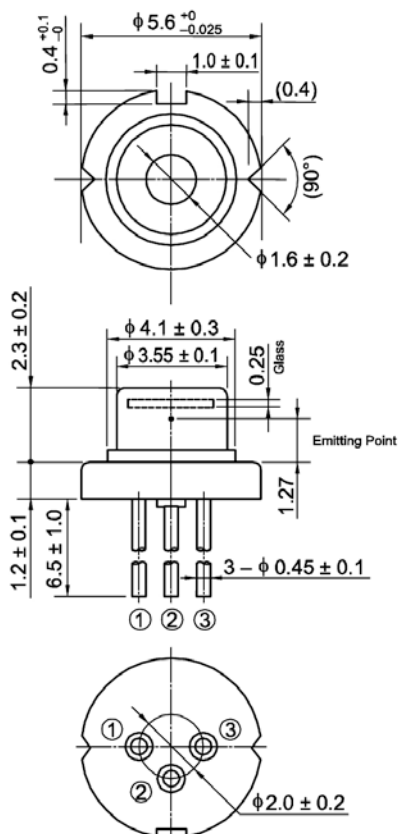
## Data Sheet

# HL6545MG

660nm / 130mW    AlGaInP Laser Diode

USHIO

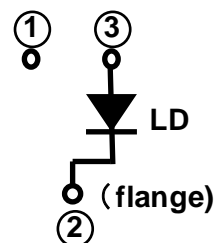
### Outline



(Unit: mm)

### Internal Circuit

#### • HL6545MG



### Features

- Visible light output: 660nm Typ.
- Optical output power: 300mW (Pulse)
- Low operating current:
  - 175mA Typ. (120mW (CW))
  - 350mA Typ. (300mW (Pulse))
- Operating temperature: +75°C
- Single transverse mode
- TE mode oscillation

### Application

- Sensor application
- Light source of optical equipments

## Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	130	mW
Pulse optical output power	Po <sub>(pulse)</sub>	300*	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
Operating Temperature	Topr <sub>(CW)</sub>	-10 ~ +75	°C
Operating Temperature	Topr <sub>(pulse)</sub>	-10 ~ +75	°C
Storage Temperature	Tstg	-40 ~ +85	°C

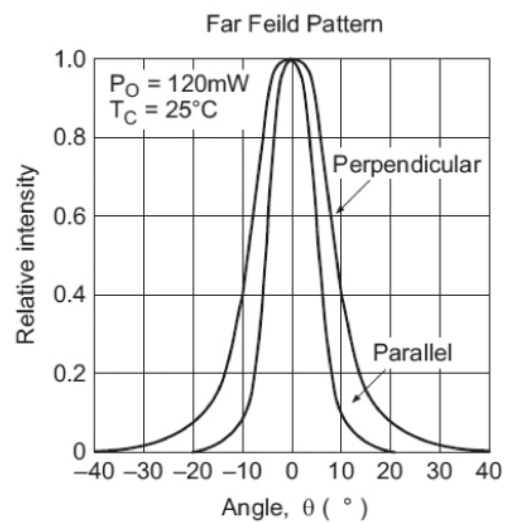
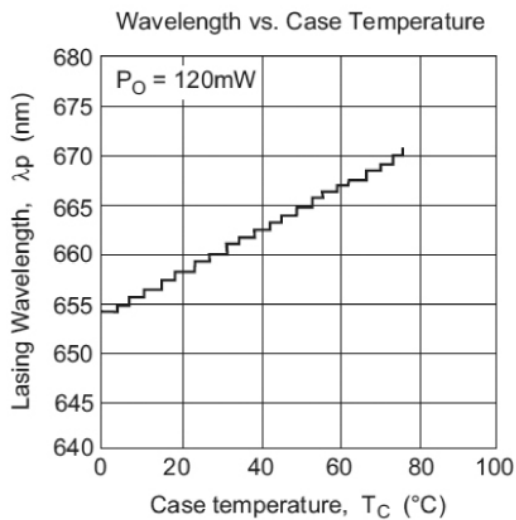
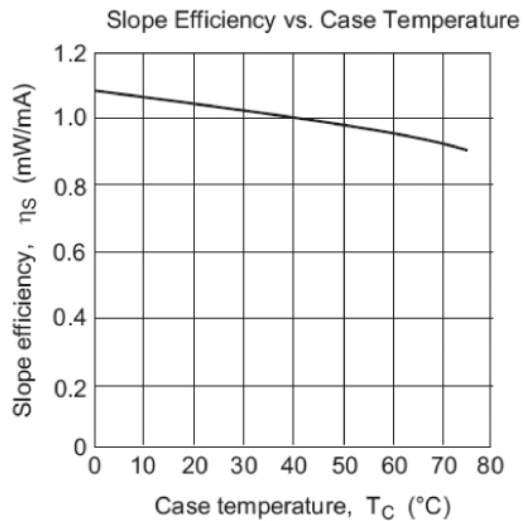
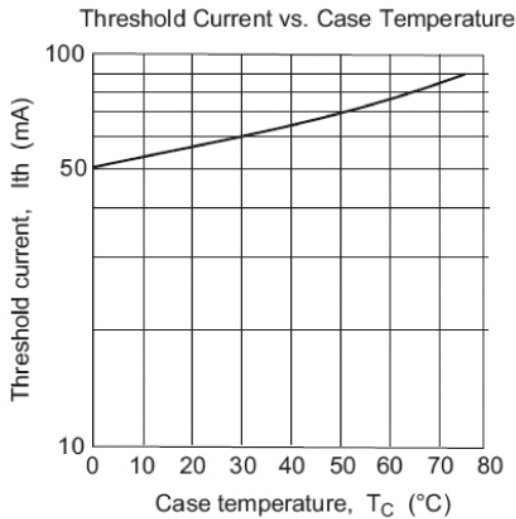
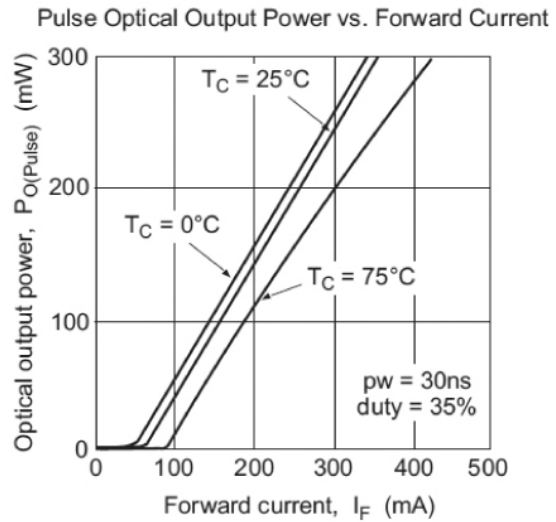
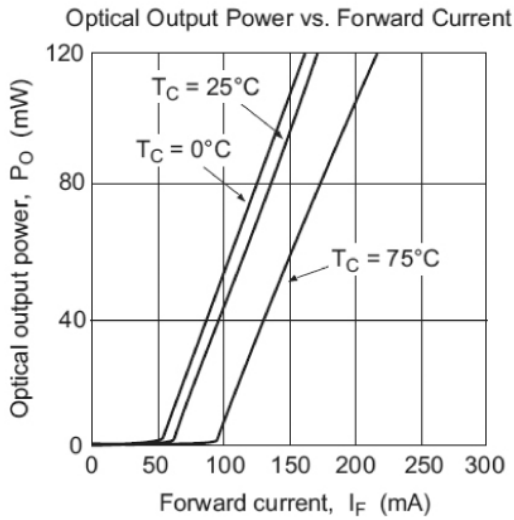
Note: Pulse condition: Pulse width = 30nsec, duty = 35%

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	60	75	mA	-
Operating current	I <sub>op</sub>	-	175	210	mA	Po=120mW
	I <sub>op(pulse)</sub>	-	350	-	mA	Po=300mW (Pulse*)
Operating voltage	V <sub>op</sub>	-	2.5	3.3	V	Po=120mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	7.5	10	12	°	Po=120mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	15	17	19	°	Po=120mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	652	660	664	nm	Po=120mW

Note: Pulse condition: Pulse width = 30nsec, duty = 35%

## Typical Characteristic Curves



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