

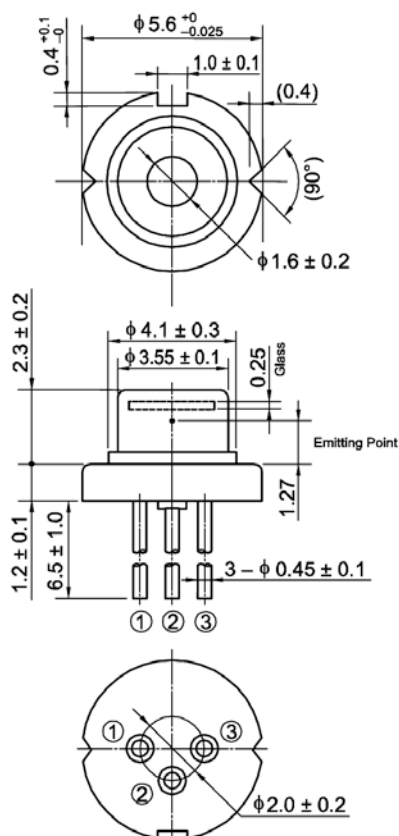
Data Sheet

HL6545MG

660nm / 130mW AlGaInP Laser Diode

USHIO

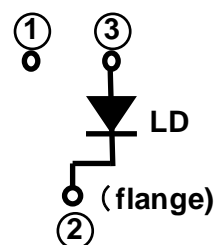
Outline



(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(pulse)	300*	mW
LD Reverse Voltage	VR(LD)	2	V
Operating Temperature	Topr(CW)	-10 ~ +75	°C
Operating Temperature	Topr(pulse)	-10 ~ +75	°C
Storage Temperature	Tstg	-40 ~ +85	°C

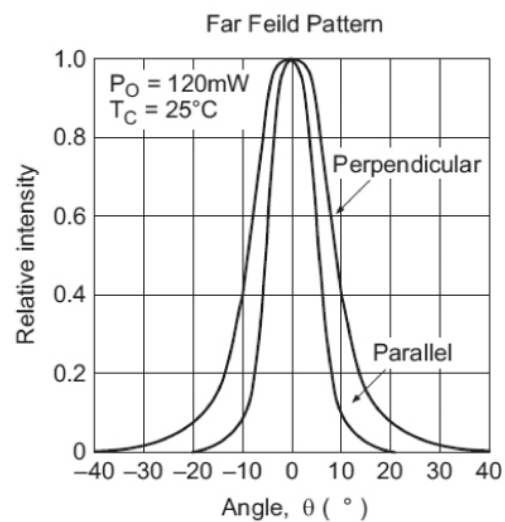
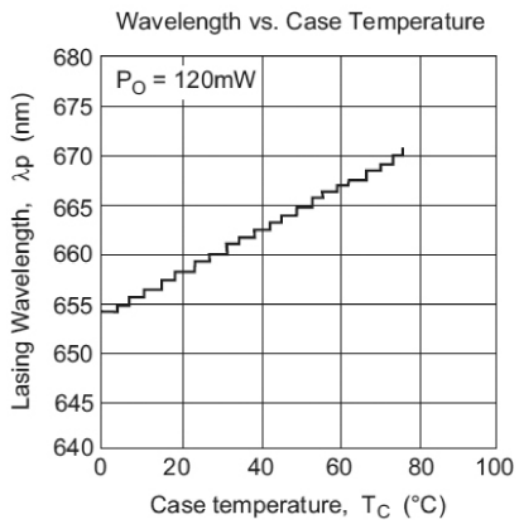
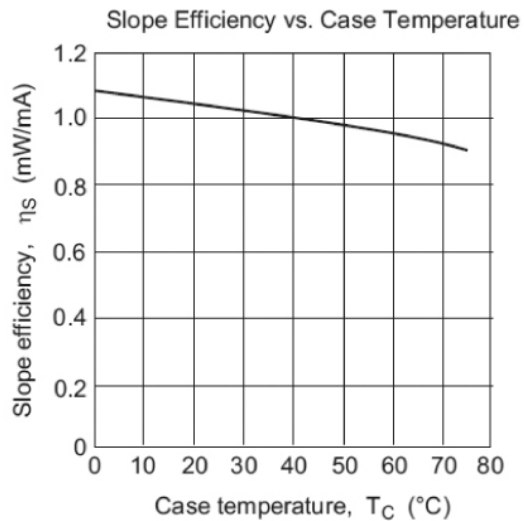
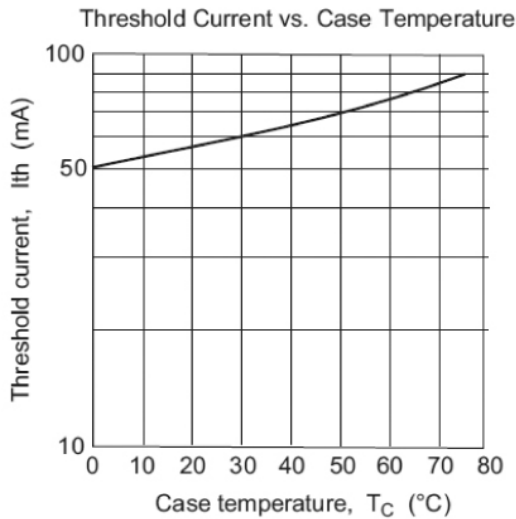
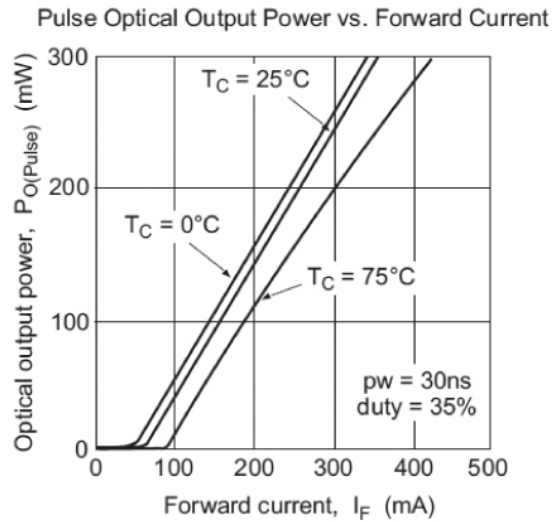
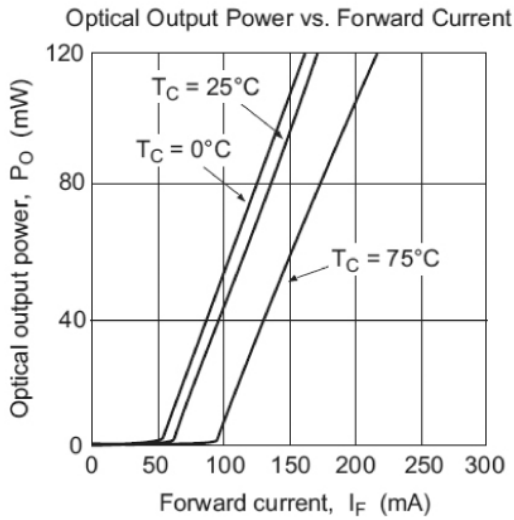
Note: Pulse condition: Pulse width = 30nsec, duty = 35%

Optical and Electrical Characteristics (Tc=25°C)

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

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

Typical Characteristic Curves



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