

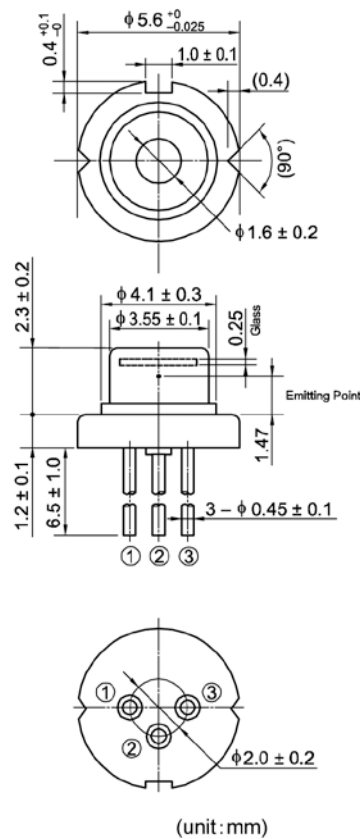
Data Sheet

HL63101MG/102MG

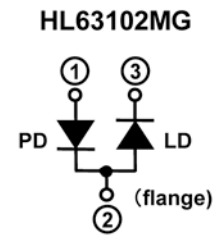
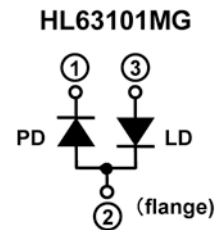
638nm / 7mW AlGaInP Laser Diode

USHIO

Outline



Internal Circuit



Features

- Optical output power: 5mW(CW)
- Visible light output: 637nm Typ.
- Low operating current: 20mA Typ.
- Low operating voltage: 2.2V Max.
- Operating temperature: 60°C
- TE mode oscillation
- Single transverse mode

Application

- Laser leveler
- Laser pointer
- Distance meter
- Light source of optical equipment

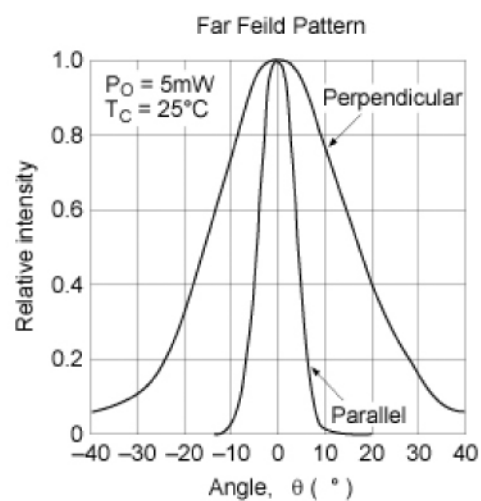
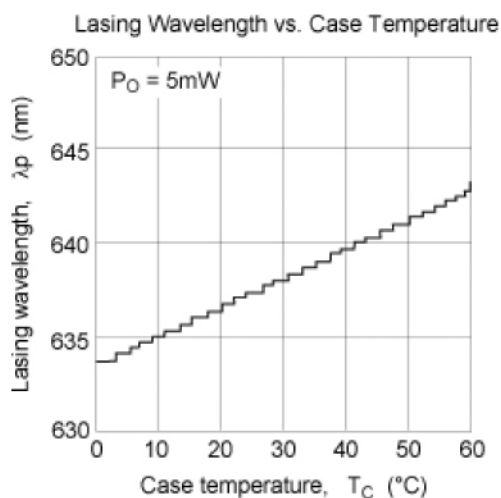
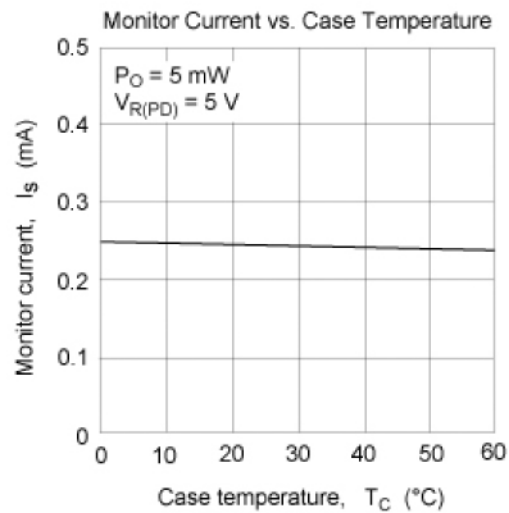
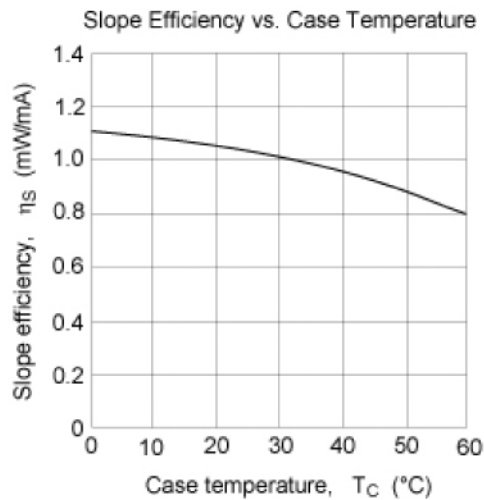
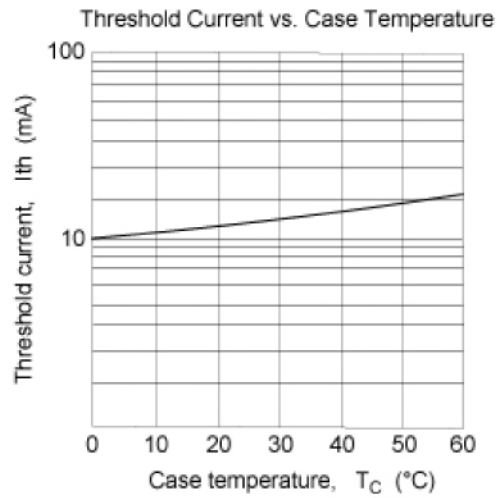
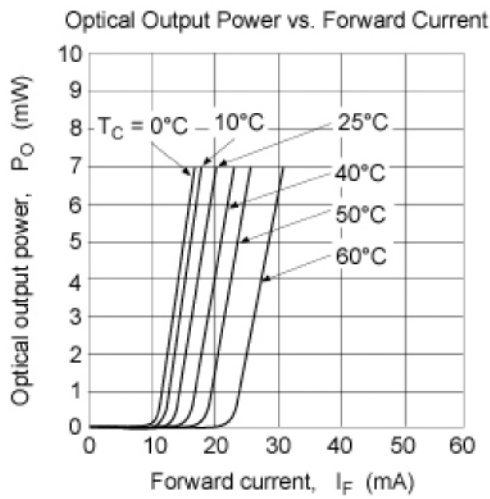
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	7	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +60	°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}	-	15	20	mA	-
Operating current	I _{op}	-	20	25	mA	Po=5mW
Operating voltage	V _{op}	-	2.2	2.4	V	Po=5mW
Lasing Wavelength	λ _p	630	637	640	nm	Po=5mW
Beam divergence Parallel to the junction	θ _{//}	5	8	11	°	Po=5mW FWHM
Beam divergence Perpendicular to the junction	θ _⊥	28	34	40	°	Po=5mW FWHM
Monitor current	I _s	0.1	0.2	0.5	mA	Po=5mW, V _{R(PD)} =5V

Typical Characteristic Curves



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