

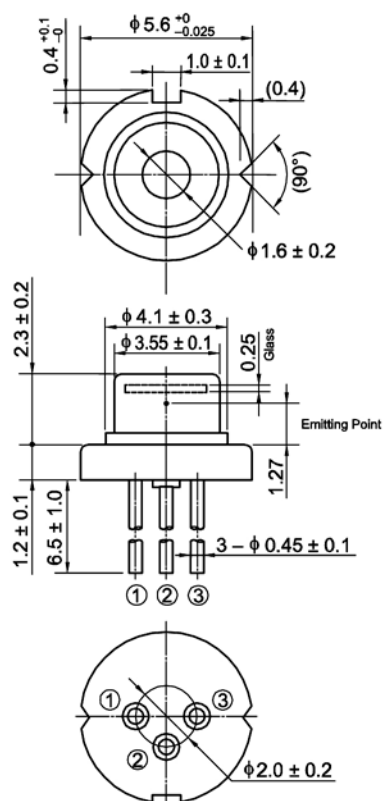
Data Sheet

HL6323MG

639nm / 30mW AlGaInP Laser Diode

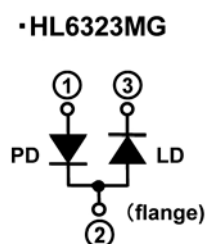
USHIO

Outline



(unit: mm)

Internal Circuit



Features

- Optical output power: 30mW(CW)*¹
- Visible light output: 639nm Typ.
- Small package: \square 5.6mm
- TM mode oscillation
- Single transverse mode

Application

- Laser markers
- High speed sensors
- Medical
- Optical Equipment for Measurement

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	35* ¹	mW
Pulse Optical output power	Po (pulse)	50* ²	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

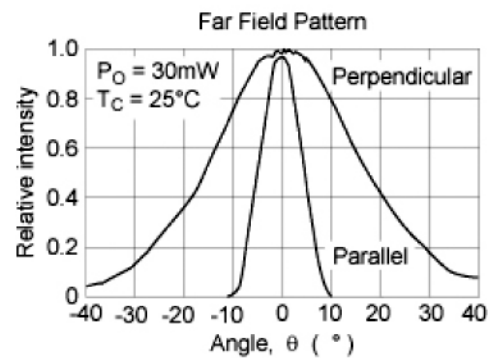
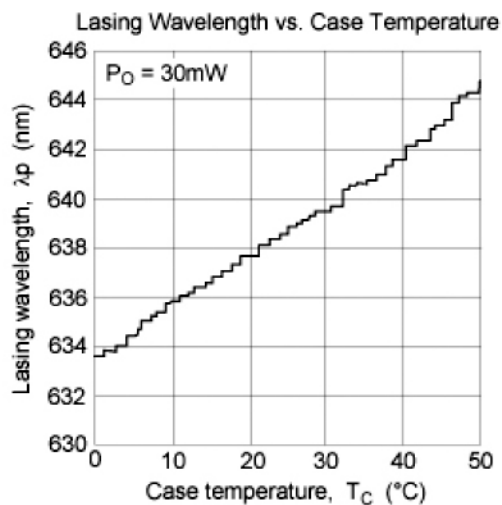
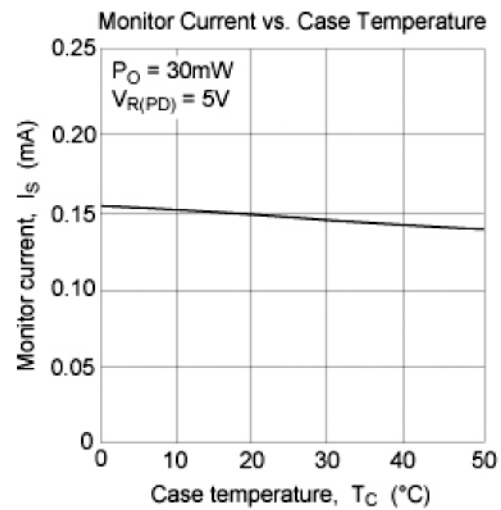
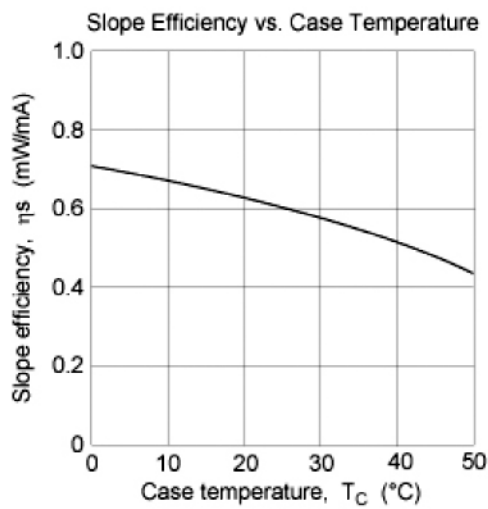
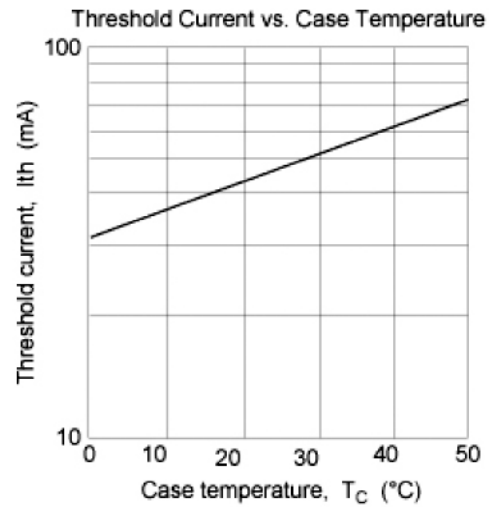
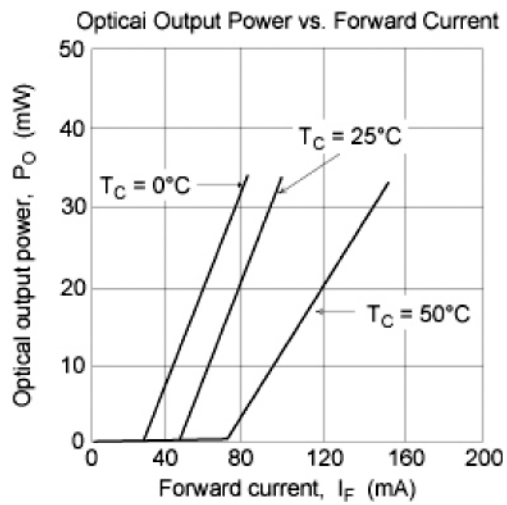
*1 : This value is not the same as the specification for long term reliability, such as life time.

*2 : Pulse condition : pulse width pw=100ns, duty =20%

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	30	45	65	mA	-
Slope efficiency	η _s	0.4	0.6	0.9	mW/mA	18(mW)/(I _(24mW) - I _(6mW))
Operating current	I _{op}	-	95	130	mA	Po=30mW
Operating voltage	V _{op}	-	2.3	2.8	V	Po=30mW
Lasing Wavelength	λ _p	635	639	642	nm	Po=30mW
Beam divergence Parallel to the junction	θ _{//}	7	8.5	11	°	Po=30mW FWHM
Beam divergence Perpendicular to the junction	θ _⊥	26	30	34	°	Po=30mW FWHM
Monitor current	I _s	0.05	0.15	0.25	mA	Po=30mW, V _{R(PD)} =5V

Typical Characteristic Curves



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