

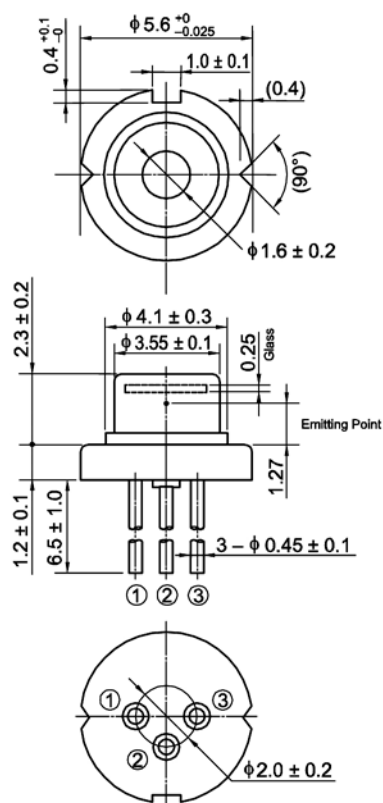
# Data Sheet

## HL6323MG

639nm / 30mW AlGaInP Laser Diode

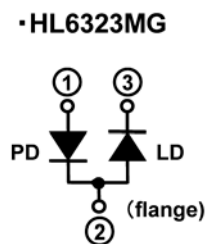
USHIO

### Outline



(unit: mm)

### Internal Circuit



### Features

- Optical output power: 30mW(CW)\*<sup>1</sup>
- 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* <sup>1</sup>	mW
Pulse Optical output power	Po (pulse)	50* <sup>2</sup>	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage	VR(PD)	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

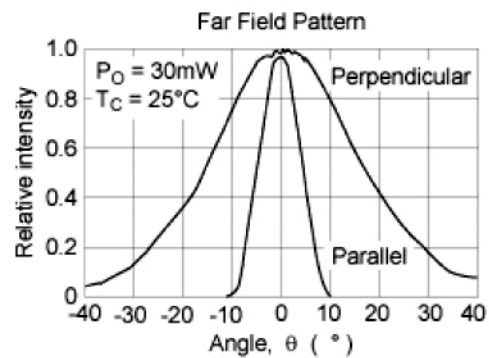
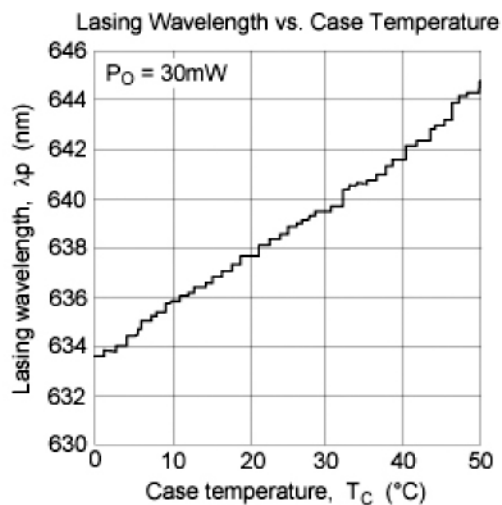
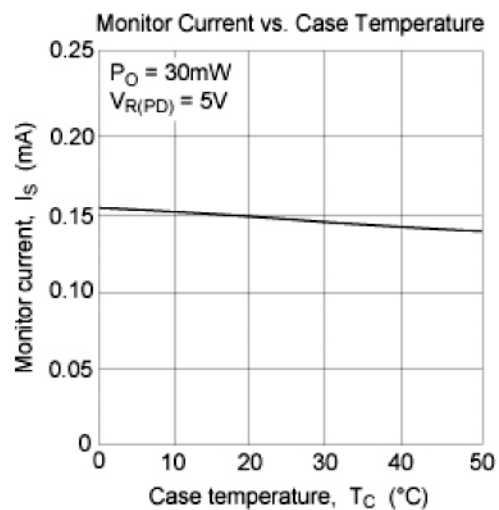
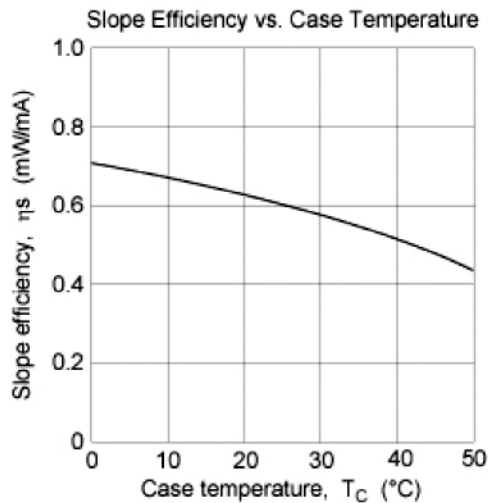
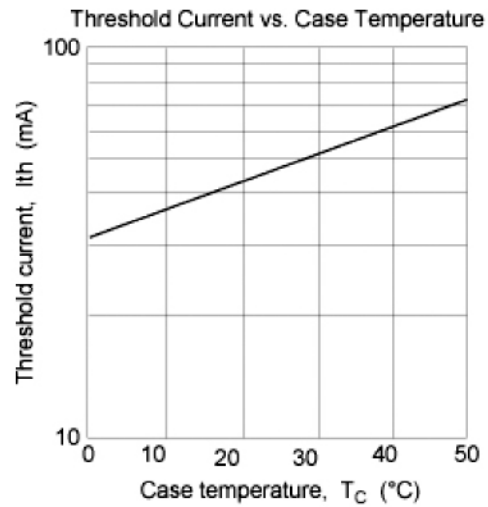
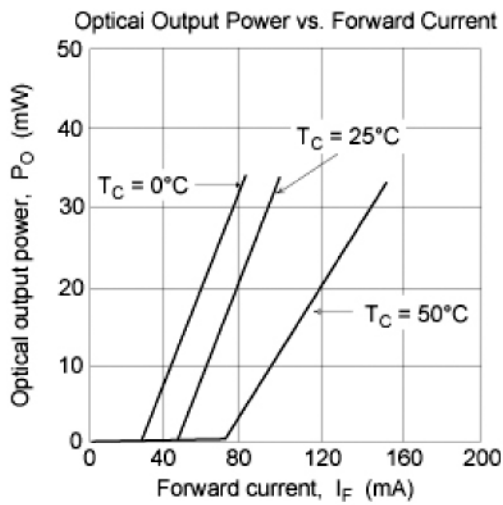
\*1 : This value is not the same as the specification for long term reliability, such as life time.

\*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	Ith	30	45	65	mA	-
Slope efficiency	ηs	0.4	0.6	0.9	mW/mA	18(mW)/(I (24mW) - I (6mW) )
Operating current	Iop	-	95	130	mA	Po=30mW
Operating voltage	Vop	-	2.3	2.8	V	Po=30mW
Lasing Wavelength	λp	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	Is	0.05	0.15	0.25	mA	Po=30mW, VR(PD)=5V

## Typical Characteristic Curves



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