

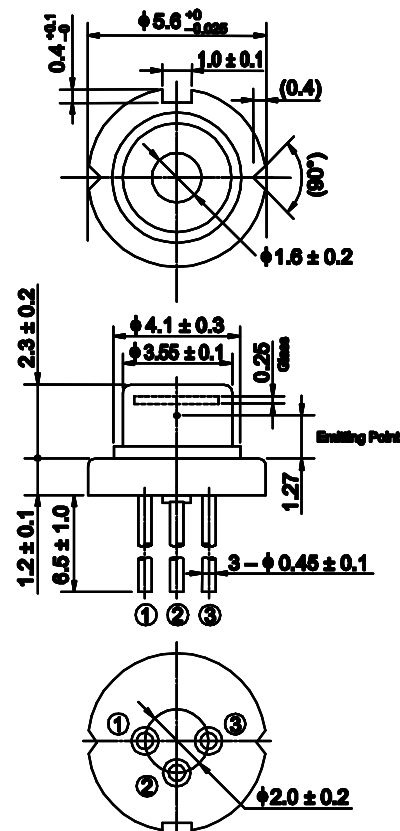
# Data Sheet

## HL6358MG/59MG

639nm / 12mW AlGaInP Laser Diode

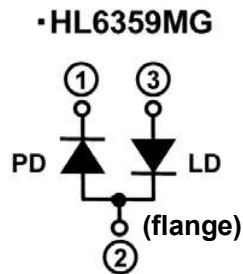
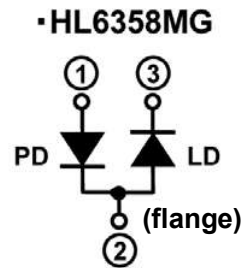
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### Outline



(unit:mm)

### Internal Circuit



### Features

- Visible light output: 639 nm Typ.
- Optical output power: 10 mW (CW)
- Single transverse mode
- Low operating current: 40 mA Typ.
- Low operating voltage: 2.5 V Max.
- Operating temperature: +50°C
- TE mode oscillation

### Application

- Laser leveler
- Laser scanner
- Light source of optical equipments

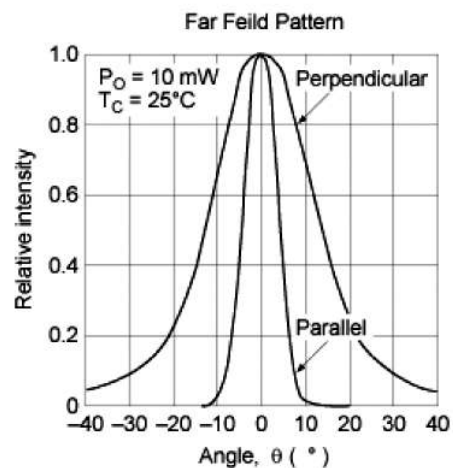
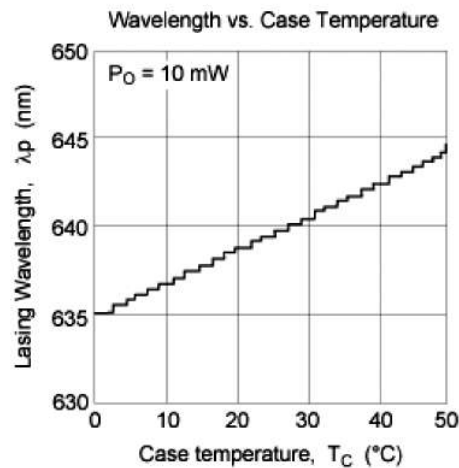
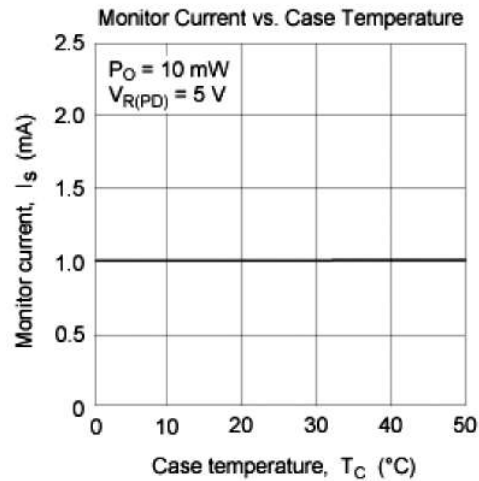
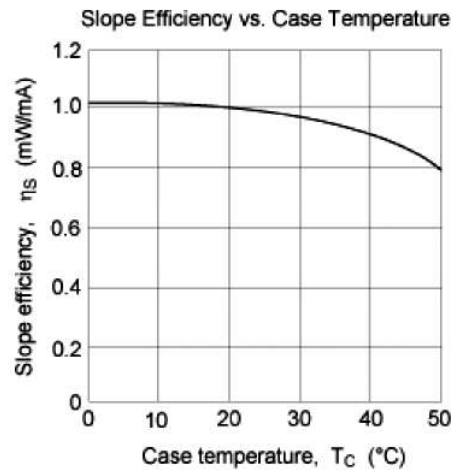
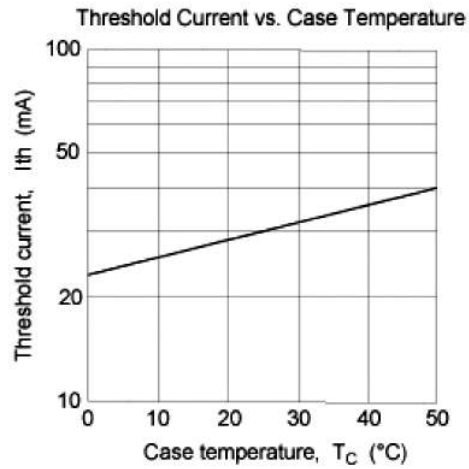
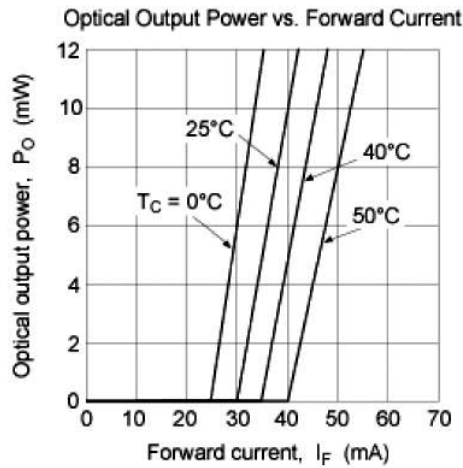
### Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	12	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	Topr	-10 ~ +50	°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 <sub>th</sub>	-	30	35	mA	-
Operating current	I <sub>op</sub>	-	40	50	mA	Po=10mW
Operating voltage	V <sub>op</sub>	-	2.3	2.5	V	Po=10mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	6	8	11	°	Po=10mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	16	21	24	°	Po=10mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	630	639	643	nm	Po=10mW
Monitor Current	I <sub>s</sub>	0.5	1.0	2.0	mA	Po=10mW, V <sub>R(PD)</sub> =5V

## Typical Characteristic Curves



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