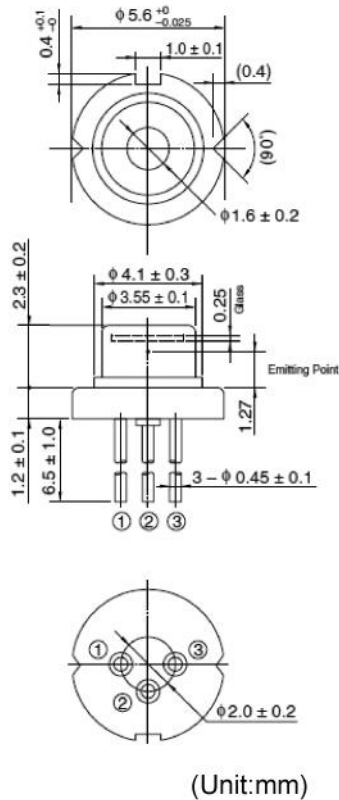


# HL7301MG/02MG

InGaAsP Laser Diode

730nm/50mW

## Outline



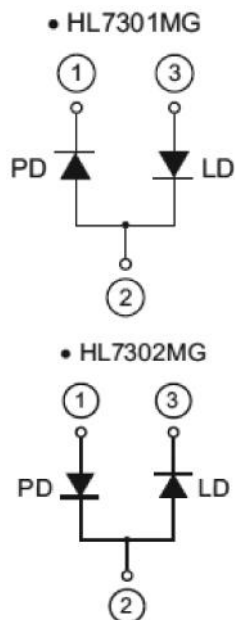
## Features:

- Optical output power: 40mW (CW)
- Infrared light output: 730nm  
Typ. (Po=40mW)
- Single transverse mode
- Low operation current : 75mA Typ  
(Po=40mW)
- TE mode oscillation
- Built-in monitor photodiode

## Applications

- Medical
- Measurement
- Laser module
- Sensing

## Internal Circuit



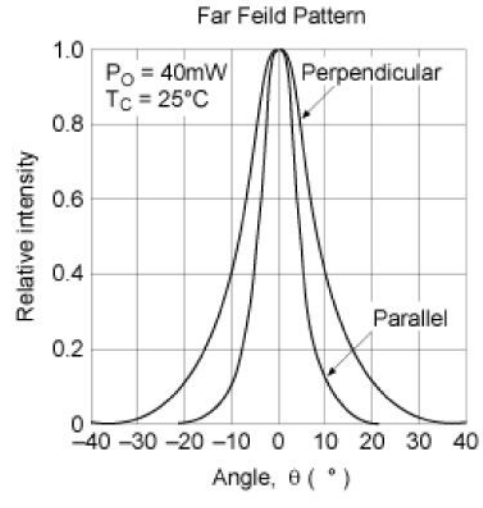
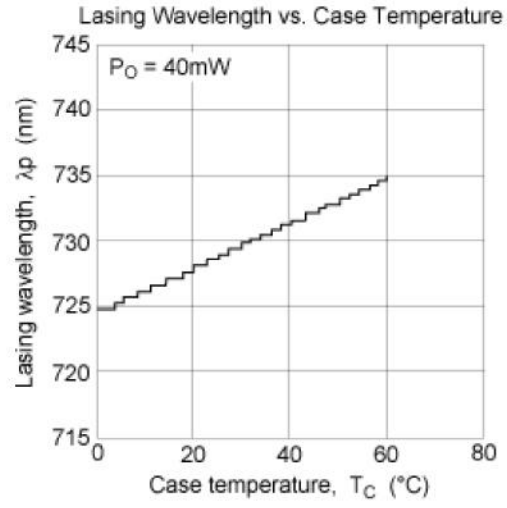
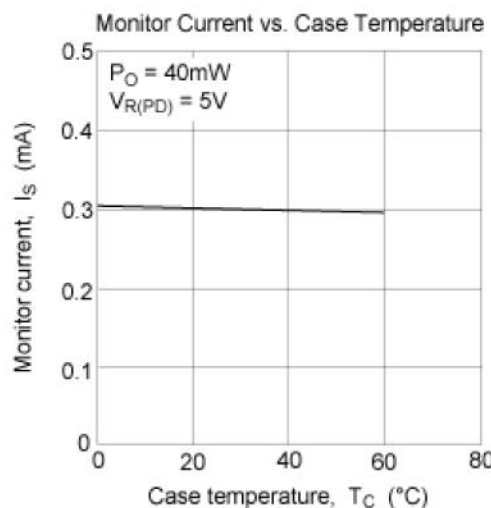
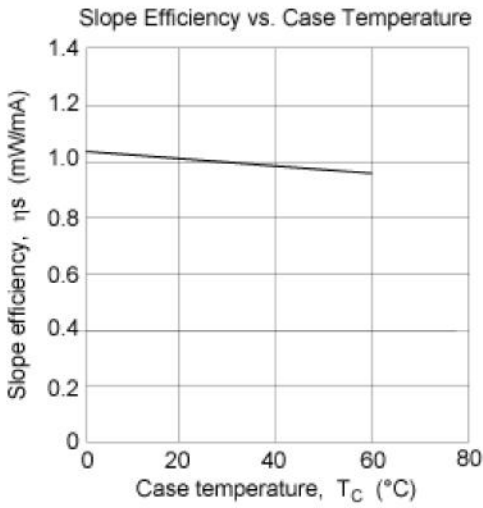
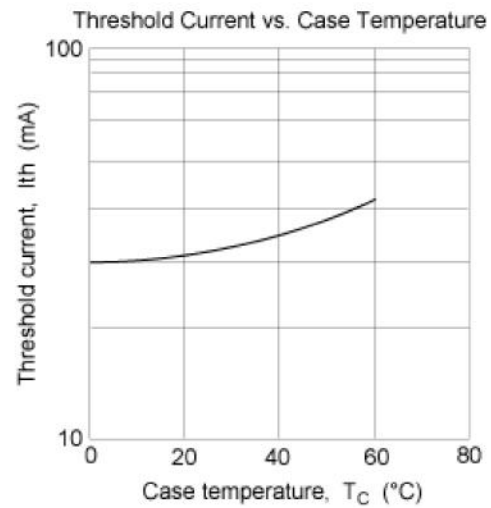
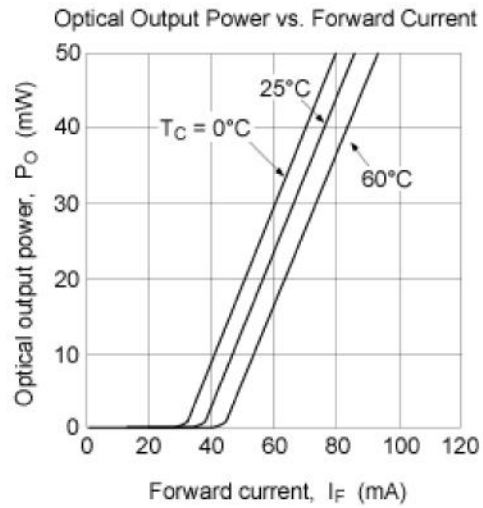
Absolute Maximum Ratings (T<sub>c</sub>=25°C)

Item	Symbol	Ratings	Unit
Optical output power	P <sub>o</sub>	50	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	T <sub>opr</sub>	-10 ~ +60	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	°C

Optical and Electrical Characteristics (T<sub>c</sub>=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	30	60	mA	
Operating current	I <sub>op</sub>	-	75	100	mA	P <sub>o</sub> =40mW
Operating voltage	V <sub>op</sub>	-	2.5	-	V	P <sub>o</sub> =40mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	7	9	14	°	P <sub>o</sub> =40mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	14	18	25	°	P <sub>o</sub> =40mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	720	730	740	nm	P <sub>o</sub> =40mW
Monitor current	I <sub>s</sub>	0.15	0.30	0.60	mA	P <sub>o</sub> =40mW, V <sub>R(PD)</sub> =5V

Typical Characteristic Curves



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- 1.The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.
- 2.This product (without violet laser diode) contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product. When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.

## Contact Information

[www.oclaro.com](http://www.oclaro.com)

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