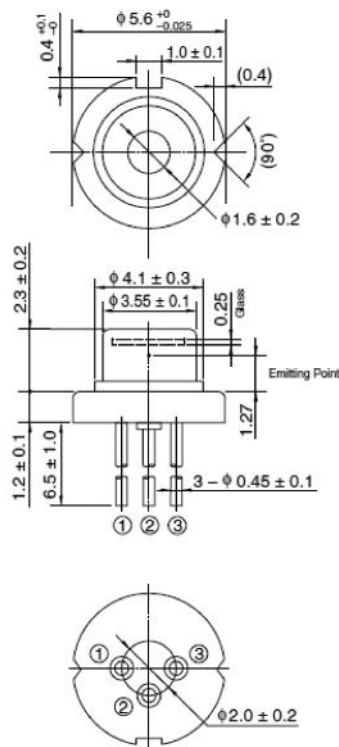


## HL7001MG/02MG

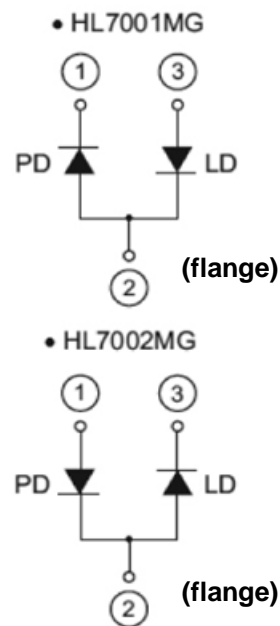
705nm / 50mW InGaAsP Laser Diode

### Outline



(Unit:mm)

### Internal Circuit



### Features

- Operation temperature: -10~+60°C
- Optical output power: 40mW(CW)
- Infrared lasing: 705nm Typ. (Po=40mW)
- Low operating voltage: 2.5V Typ. (Po=40mW)
- Package:  $\phi$ 5.6mm
- Single transverse mode
- TE mode oscillation

### Application

- Medical
- Measurement
- Laser module
- Sensing

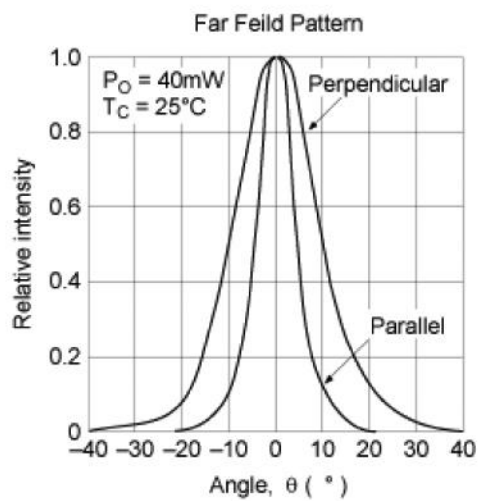
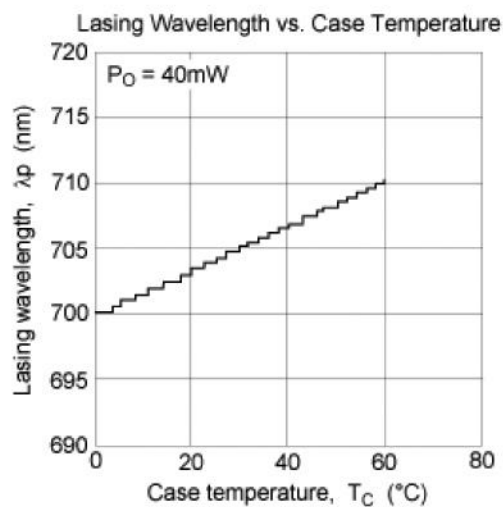
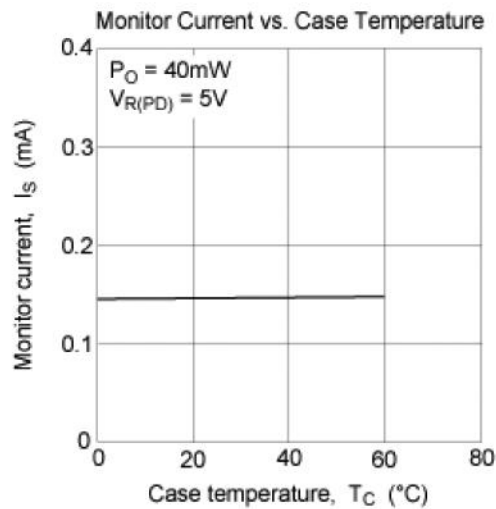
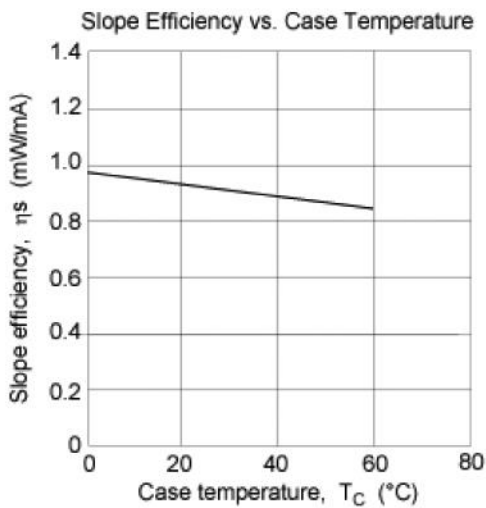
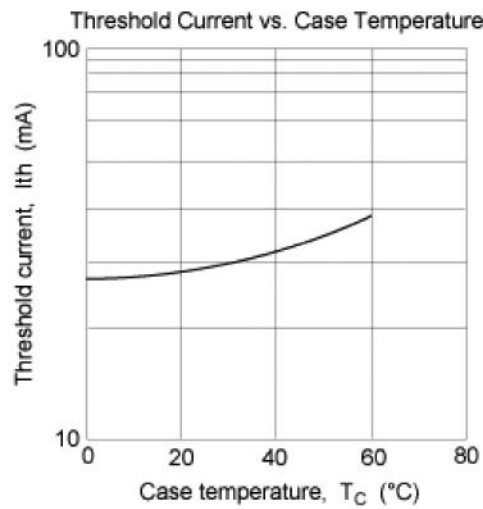
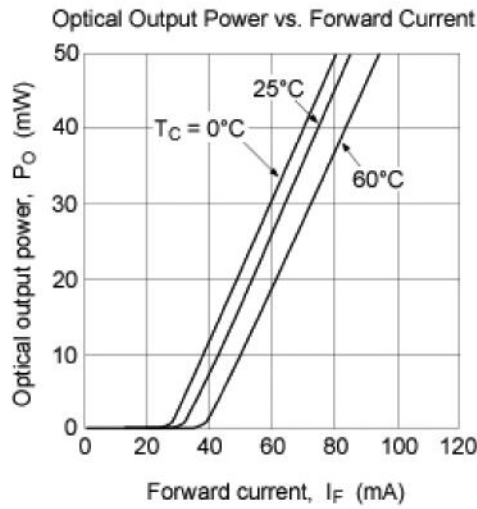
**Absolute Maximum Ratings (Tc=25°C)**

Item	Symbol	Ratings	Unit
Optical output power	Po	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 (Tc=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	Po=40mW
Operating voltage	V <sub>op</sub>	-	2.5	-	V	Po=40mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	7	9	14	°	Po=40mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	14	18	25	°	Po=40mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	695	705	715	nm	Po=40mW
Monitor Current	I <sub>s</sub>	0.15	0.30	0.60	mA	Po=40mW, V <sub>R(PD)</sub> =5V

### Typical Characteristic Curves



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