

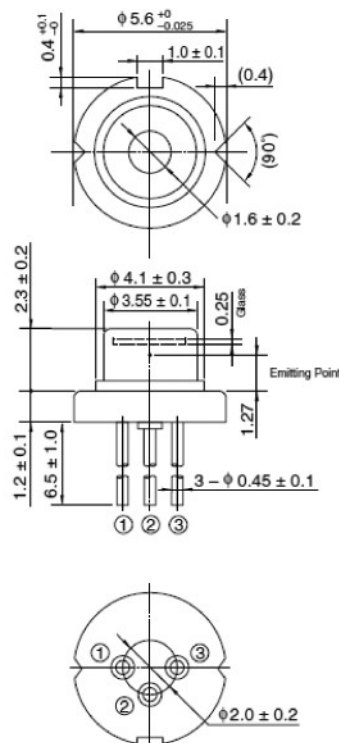
Data Sheet

HL7001MG/02MG

705nm / 50mW InGaAsP Laser Diode

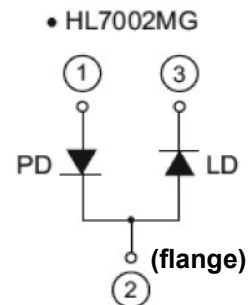
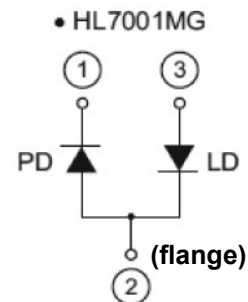
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Outline



(Unit:mm)

Internal Circuit



Features

- Operation temperature: $-10 \sim +60^{\circ}\text{C}$
- Optical output power: 40mW(CW)
- Infrared lasing: 705nm Typ. ($P_o=40\text{mW}$)
- Low operating voltage: 2.5V Typ. ($P_o=40\text{mW}$)
- Package: $\phi 5.6\text{mm}$
- Single transverse mode
- TE mode oscillation

Application

- Medical
- Measurement
- Laser module
- Sensing

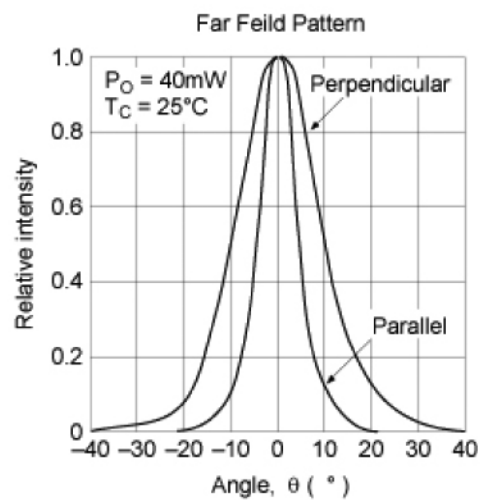
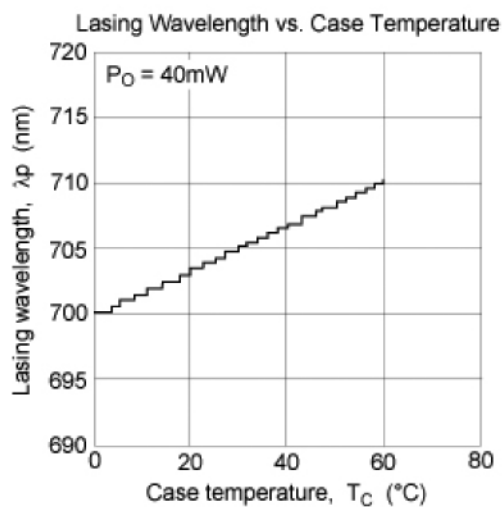
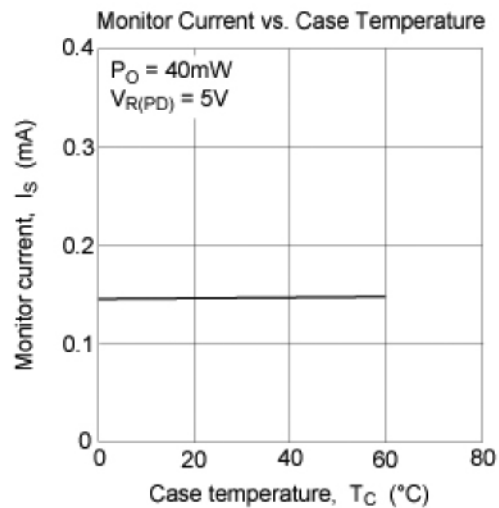
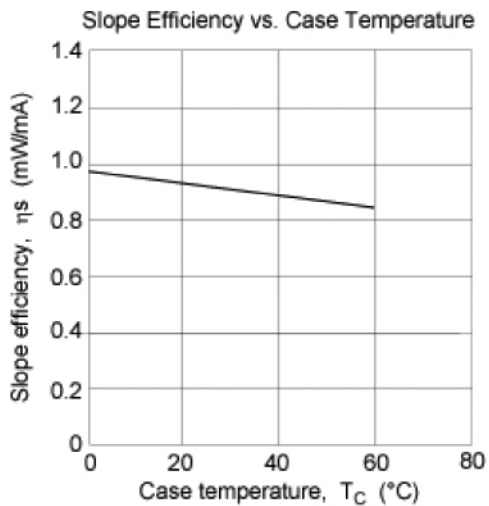
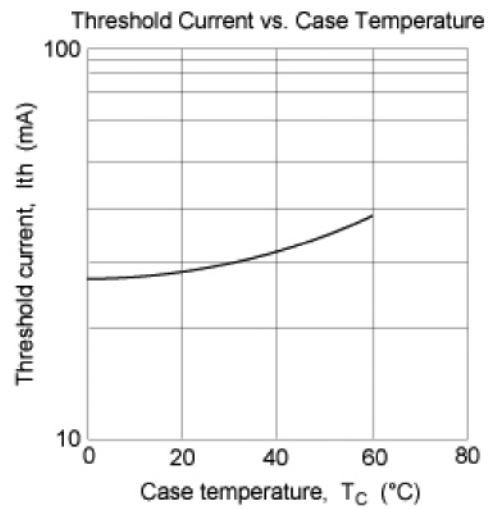
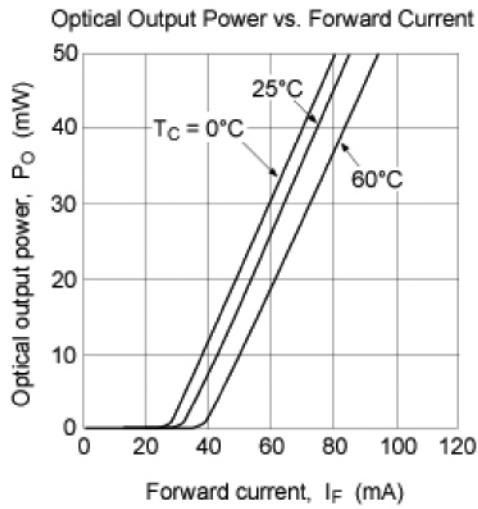
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	50	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +60	°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 _{th}	-	30	60	mA	-
Operating current	I _{op}	-	75	100	mA	Po=40mW
Operating voltage	V _{op}	-	2.5	-	V	Po=40mW
Beam divergence Parallel to the junction	θ _{//}	7	9	14	°	Po=40mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	14	18	25	°	Po=40mW, FWHM
Lasing Wavelength	λ _p	695	705	715	nm	Po=40mW
Monitor Current	I _s	0.15	0.30	0.60	mA	Po=40mW, V _{R(PD)} =5V

Typical Characteristic Curves



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