



Product Status Information

HL7001MG-A is Not Recommended for New Design (NRND) status. Please refer to successor product below for new design and adoption.

NRND Product	Successor Product
HL7001MG-A	HL70031DG
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL7001MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL70031DG.pdf

For the “Product Life Cycle” definition, please refer to below link.

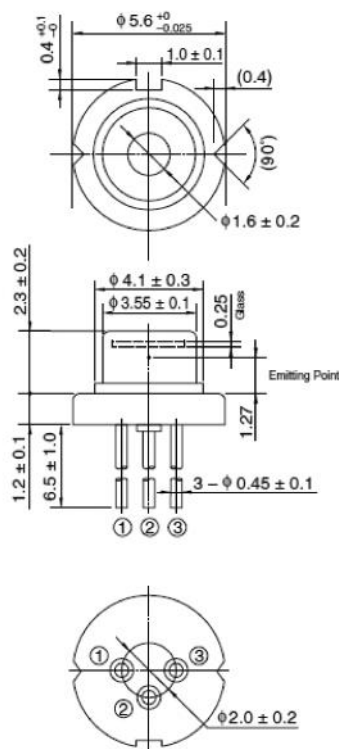
Japanese; <https://www.ushio.co.jp/jp/laser/news/500958.html>

English; <https://www.ushio.co.jp/en/laser/news/500958.html>

HL7001MG-A/O2MG-A

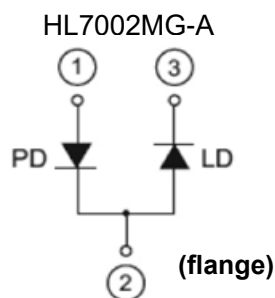
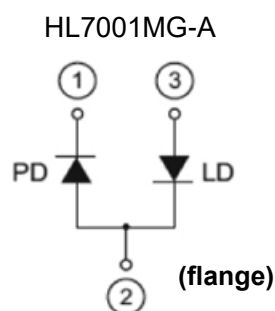
705nm / 50mW InGaAsP Laser Diode

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: $\phi 5.6$ mm
- Single transverse mode
- TE mode oscillation

Application

- Medical
- Measurement
- Laser module
- Sensing

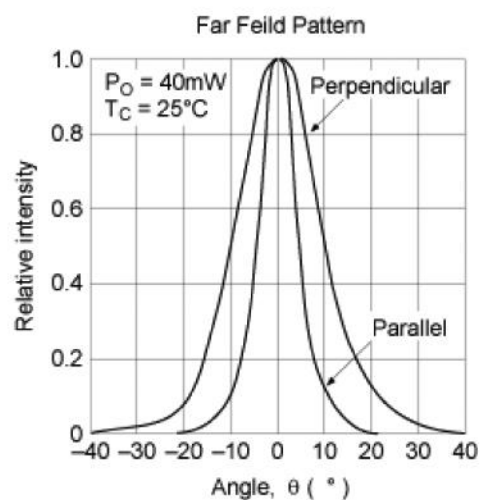
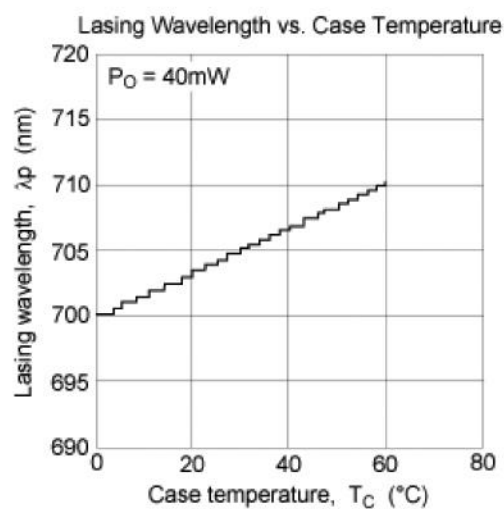
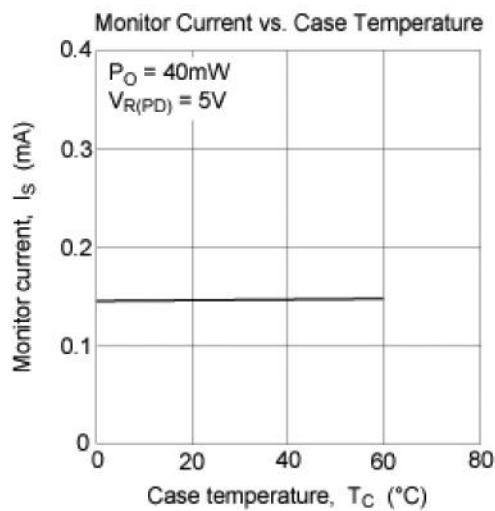
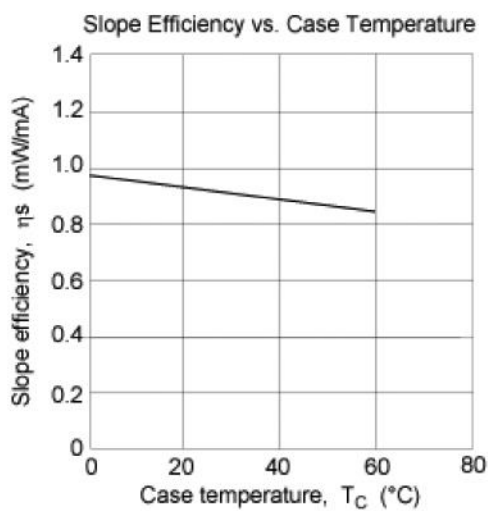
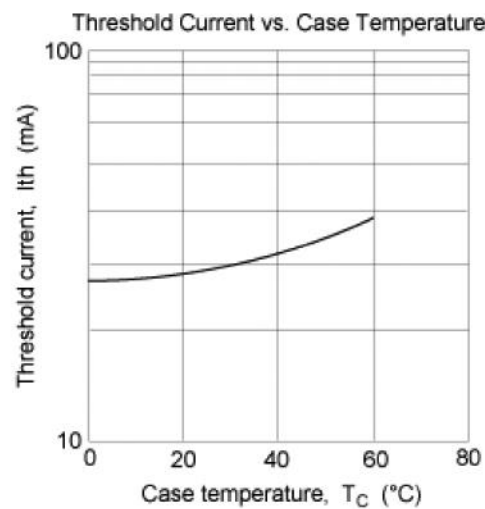
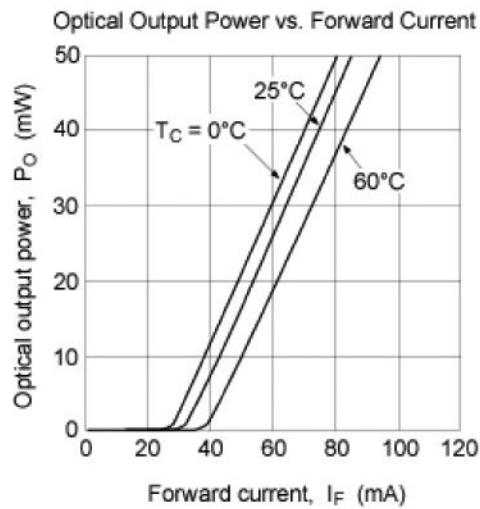
Absolute Maximum Ratings (Tc=25°C)

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	T _{opr}	-10 ~ +60	°C
Storage Temperature	T _{stg}	-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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