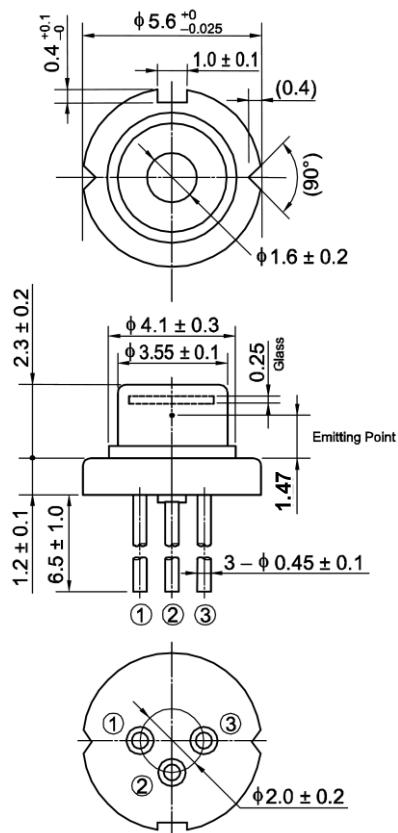


## HL85021MG/022MG/023MG

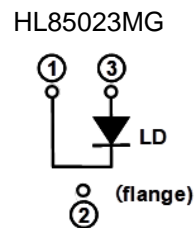
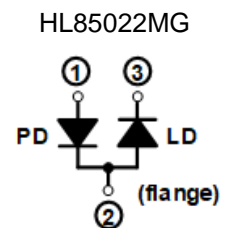
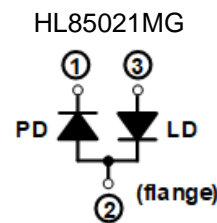
850nm/260mW Infrared Laser Diode

### Outline



(Unit: mm)

### Internal Circuit



### Features

- Infrared light output: 850nm Typ.
- High optical output power: 260mW (CW)
- Operating current: 270mA Typ. at 250mW
- Wide operating temperature: -40 ~ +75°C
- Single transverse mode
- TE mode oscillation

### Application

- Night vision
- Sensor application
- Laser module

# HL85021MG/022MG/023MG

Data Sheet

## Absolute Maximum Ratings (Tc=25°C)

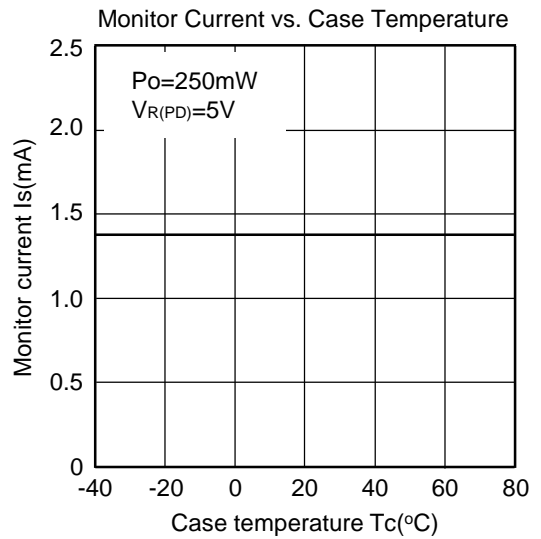
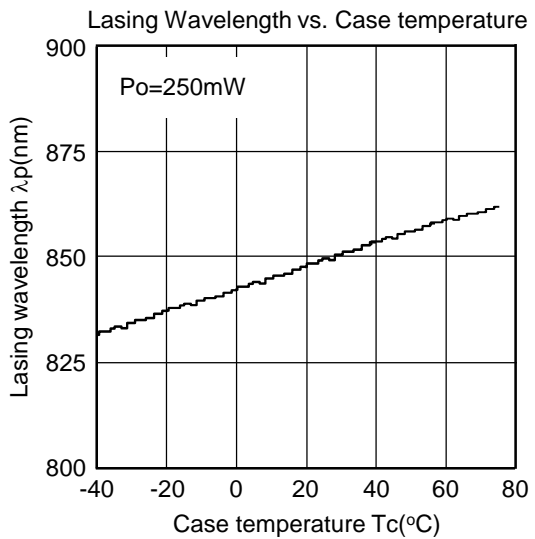
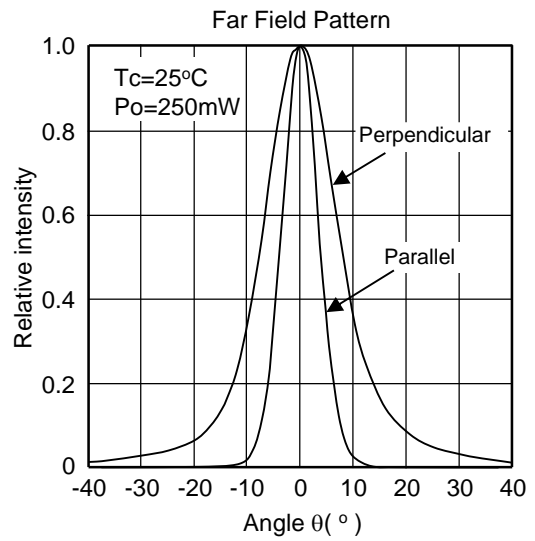
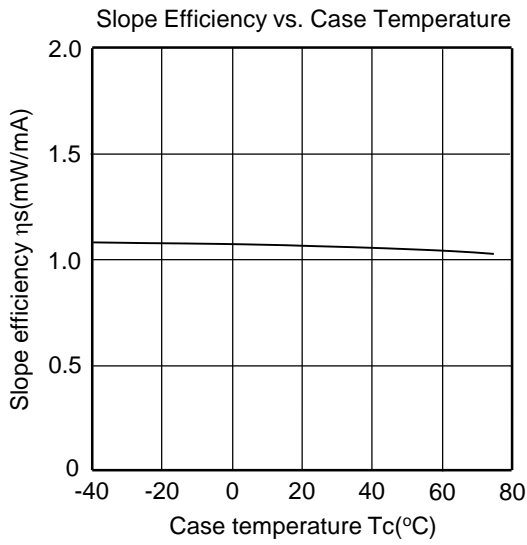
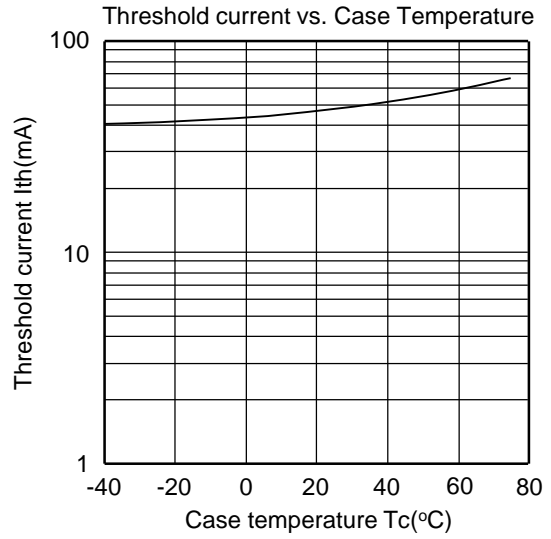
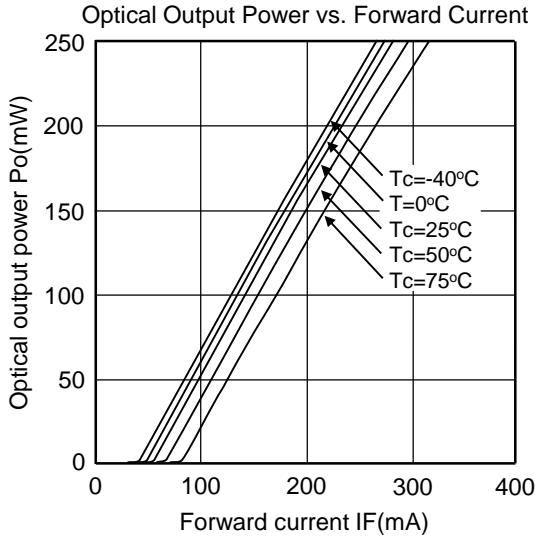
Item	Symbol	Ratings	Unit
Optical output power	Po	260	mW
LD reverse voltage	V <sub>R(LD)</sub>	2	V
PD reverse voltage <sup>Note1)</sup>	V <sub>R(PD)</sub>	30	V
Operating temperature	Topr	-40 ~ +75	°C
Storage temperature	Tstg	-40 ~ +85	°C

## Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	45	80	mA	-
Operating current	I <sub>op</sub>	-	270	320	mA	Po=250mW
Operating voltage	V <sub>op</sub>	-	2.6	3.0	V	Po=250mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	5	8	11	°	Po=250mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	11	15	19	°	Po=250mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	840	850	860	nm	Po=250mW
Monitor current <sup>Note1)</sup>	I <sub>s</sub>	0.2	1.4	3.1	mA	Po=250mW, V <sub>R(PD)</sub> =5V

Note1) Not applicable to HL85023MG.

## Typical Characteristic Curves



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