# Data Sheet

# HL8340MG/41MG

852nm / 50mW

GaAlAs Laser Diode



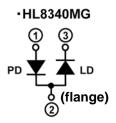
#### **Outline**

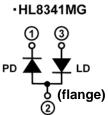
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(Unit:mm)

# **Internal Circuit**





#### **Features**

- Operation temperature: -10~+60°C
- Optical output power: 50mW(CW)
- Infrared lasing: 852nm Typ.
- Low operating voltage: 2.4V Max.
- Package: φ5.6mm
- Single transverse mode
- TE mode oscillation

# **Application**

- Sensor application
- Night vision
- Machine vision
- Light source of optical equipments



## Absolute Maximum Ratings (Tc=25°C)

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

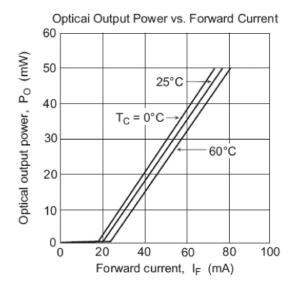
# Optical and Electrical Characteristics (Tc=25°C)

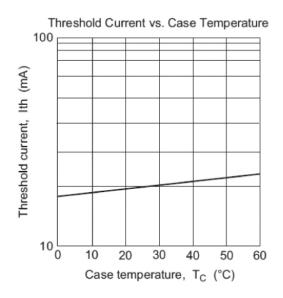
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	-	20	40	mA	-
Operating current	lop	-	75	100	mA	Po=50mW
Operating voltage	Vop	-	1.9	2.4	V	Po=50mW
Beam divergence Parallel to the junction	θ//	6	9	12	0	Po=50mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	18	22	26	o	Po=50mW, FWHM
Lasing Wavelength	λр	842	852	862	nm	Po=50mW
Monitor Current	Is	0.10	0.25	0.50	mA	Po=50mW, VR(PD)=5V

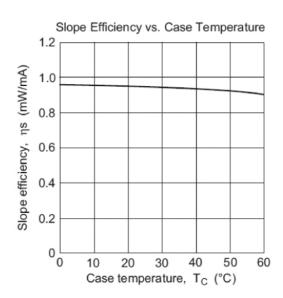
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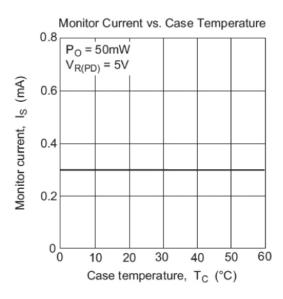


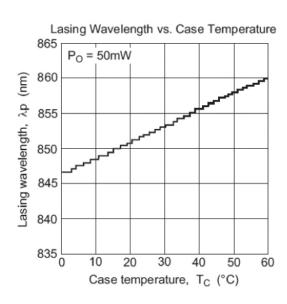
## **Typical Characteristic Curves**

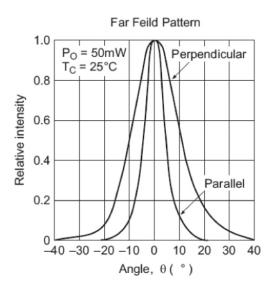












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