# **USHIO** Applying Light to Life

### **Product Status Information**

HL8340MG-A is Not Recommended for New Design (NRND) status. Please refer to successor product below for new design and adoption.

NRND Product	Successor Product		
HL8340MG-A	HL85022MG		
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL8340MG.pdf	https://www.ushio.co.jp/jp/products/product file/file/UIE DS HL85022MG.pdf		

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

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

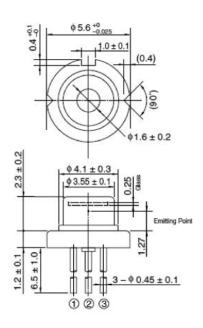
English; <a href="https://www.ushio.co.jp/en/laser/news/500958.html">https://www.ushio.co.jp/en/laser/news/500958.html</a>

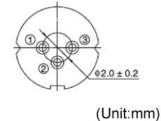
# HL8340MG-A/41MG-A

852nm/50mW

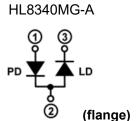
GaAlAs Laser Diode

### **Outline**

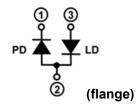




### **Internal Circuit**



HL8341MG-A



### **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

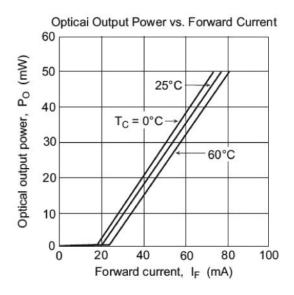
### **Absolute Maximum Ratings (Tc=25°C)**

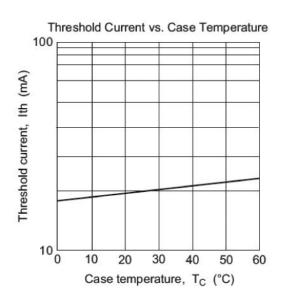
Item	Symbol	Ratings	Unit
Optical output power	Ро	50	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

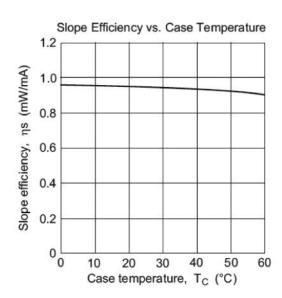
### Optical and Electrical Characteristics (Tc=25°C)

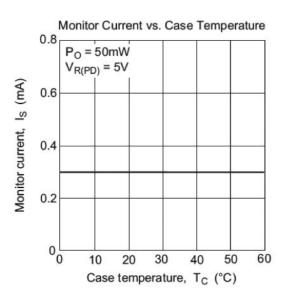
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	-	20	40	mA	-
Operating current	lop	-	75	100	mA	Po=50mW
Operating voltage	Vop	-	1.9	2.4	V	Po=50mW
Beam divergence Parallel to the junction	θ//	6	9	12	0	Po=50mW, FWHM
Beam divergence Perpendicular to the junction	θΤ	18	22	26	o	Po=50mW,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

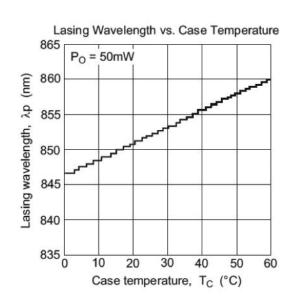
### **Typical Characteristic Curves**

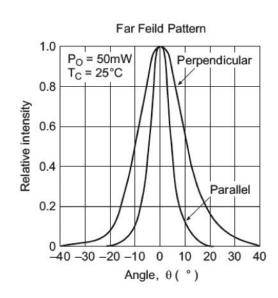












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Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## HL8340MG/41MG-A

Data Sheet

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