# **USHIO** Applying Light to Life

### **Product Status Information**

HL6354MG-A/55MG-A are Not Recommended for New Design (NRND) status. Please refer to successor product below for new designs and adoptions.

NRND Product	Successor Product		
HL6354MG-A	HL63102MG		
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6354MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL63102MG.pdf		

NRND Product	Successor Product		
HL6355MG-A	HL63101MG		
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6355MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL63101MG.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> <a href="https://www.ushio.co.jp/en/laser/news/500958.html">https://www.ushio.co.jp/en/laser/news/500958.html</a>

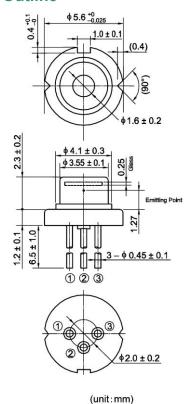


## HL6354MG-A/55MG-A

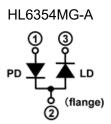
638nm/7mW

AlGaInP Laser Diode

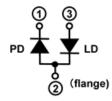
### **Outline**



### **Internal Circuit**



HL6355MG-A



#### **Features**

- Optical output power: 5mW(CW)
- Visible light output: 638nm Typ.
- Low operating current: 27mA Typ.
- Low operating voltage: 2.4V Max.
- Operating temperature: 50°C
- TM mode oscillation
- Single transverse mode

### **Application**

- Laser leveler
- Laser pointer
- Distance meter
- Light source of optical equipment

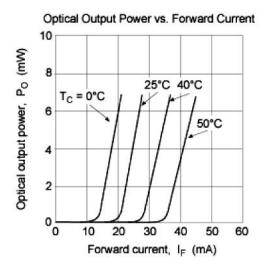
### **Absolute Maximum Ratings (Tc=25°C)**

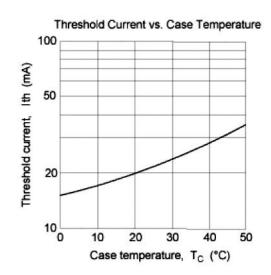
Item	Symbol	Ratings	Unit
Optical output power	Ро	7	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

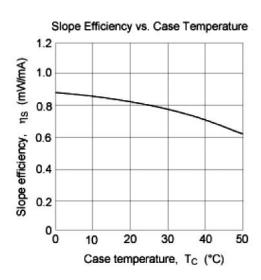
### Optical and Electrical Characteristics (Tc=25°C)

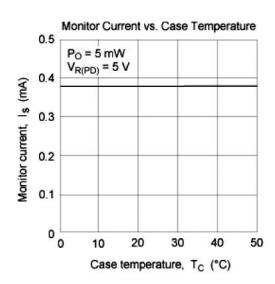
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	-	20	27	mA	-
Operating current	lop	-	27	36	mA	Po=5mW
Operating voltage	Vop	-	2.2	2.4	V	Po=5mW
Lasing Wavelength	λр	630	638	640	nm	Po=5mW
Beam divergence Parallel to the junction	θ//	6	8	10	0	Po=5mW FWHM
Beam divergence Perpendicular to the junction	θ⊥	20	25	30	0	Po=5mW FWHM
Monitor current	Is	0.15	0.40	0.60	mA	Po=5mW, VR(PD) =5V

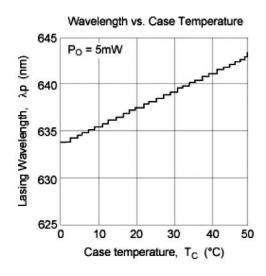
### **Typical Characteristic Curves**

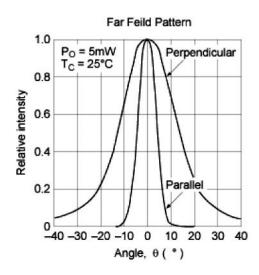












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Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### HL6354MG-A/55MG-A

Data Sheet

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