



Product Status Information

HL63253MG is Not Recommended for New Design (NRND) status. Please refer to successor product below for new designs and adoptions.

NRND Product	Successor Product
HL63253MG	HL63193MG
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL63253MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL63193MG.pdf

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

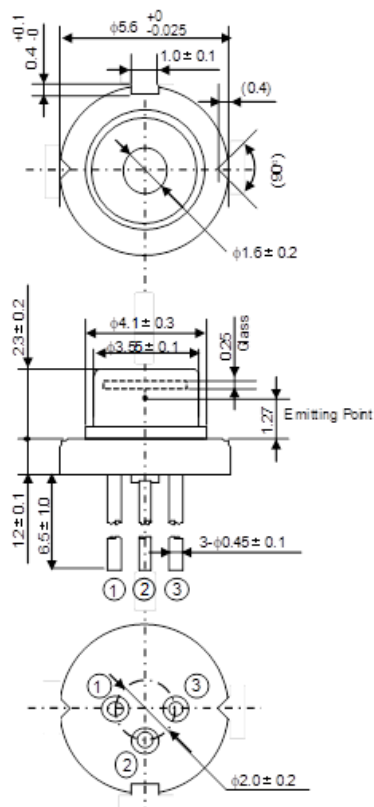
Japanese; <https://www.ushio.co.jp/jp/laser/news/500958.html>

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

HL63253MG

637nm/450mW AlGaInP Laser Diode

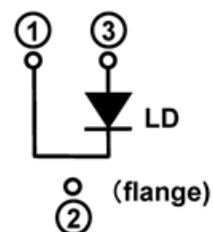
Outline



(Unit: mm)

Internal Circuit

HL63253MG



Features

- Shorter wavelength: 637nm Typ.
- High optical output power: 450mW
- Low operating current: 600mA Typ.
- Small package: $\phi 5.6\text{mm}$
- Multi transverse mode
- TM mode oscillation

Application

- Bio & Medical
- Measurement

Absolute Maximum Ratings (Tc=25°C)

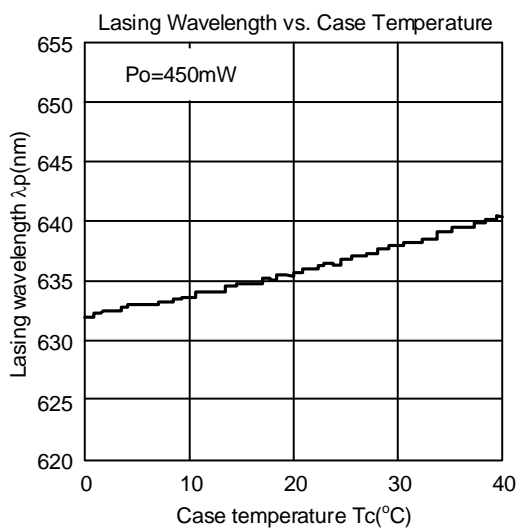
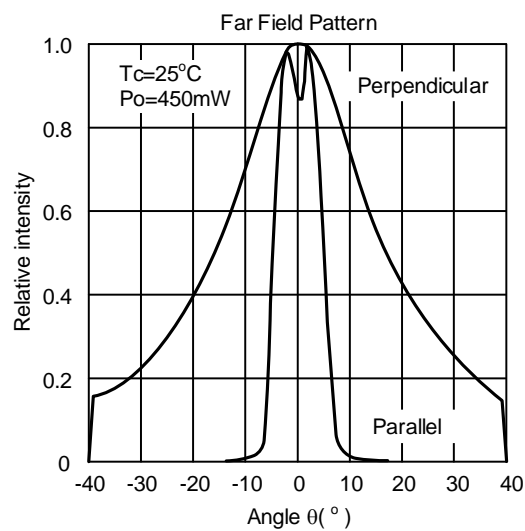
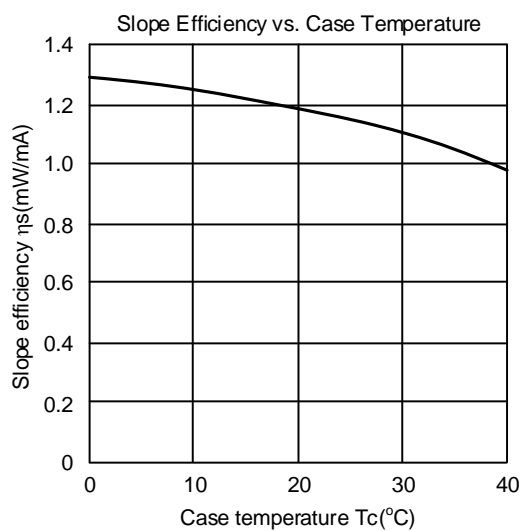
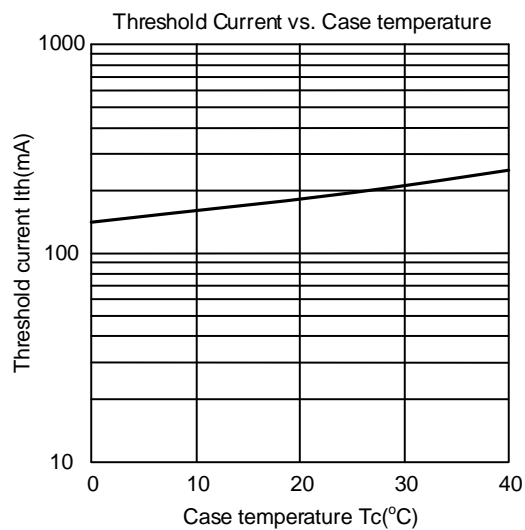
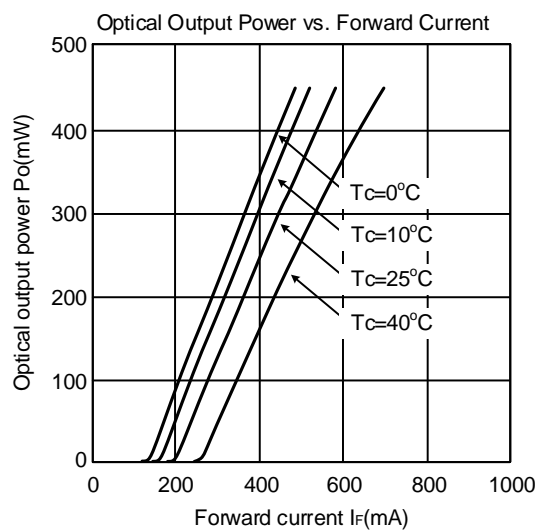
Item	Symbol	Ratings	Unit
Optical output power	Po	450	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature ^{Note1)}	Topr	-10 ~ +40	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Note1) Operating temperature is defined by Case temperature "Tc". High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD's maximum operating temperature is not exceeded during actual operation.

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	200	250	mA	-
Operating current	I _{op}	-	600	700	mA	Po=450mW
Operating voltage	V _{op}	-	2.2	2.6	V	Po=450mW
Beam divergence Parallel to the junction	θ _{//}	1	8.5	20	°	Po=450mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	25	33	40	°	Po=450mW, FWHM
Lasing Wavelength	λ _p	632	637	642	nm	Po=450mW

Typical Characteristic Curves



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