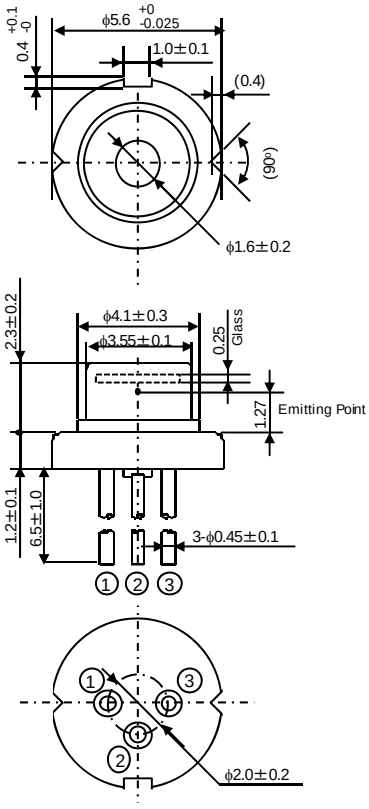
USHIO

Data Sheet

HL63253MG

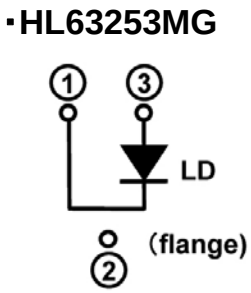
637nm／450mW　AlGaInP Laser Diode

Outline



(unit: mm)

Internal Circuit



Features

- Shorter wavelength: 637nm Typ.
- High optical output power: 450mW
- Low operating current: 600mA Typ.
- Small package: ϕ5.6mm
- Multi transverse mode
- TM mode oscillation

Application

- Laser module
- Light source of optical equipment

Absolute Maximum Ratings (Tc=25°C)

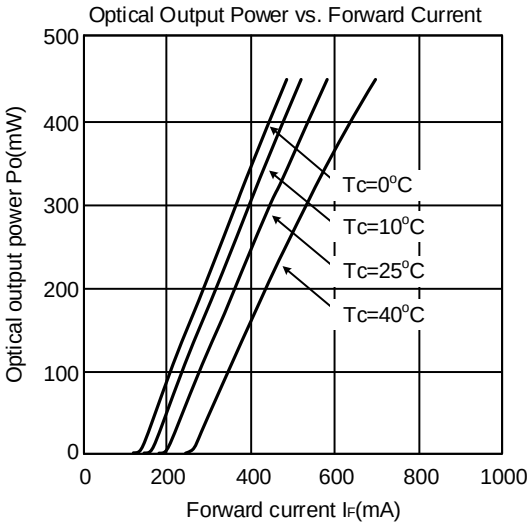
Item	Symbol	Ratings	Unit
Optical output power	Po	450	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
Operating Temperature Note1)	Topr	-10 ~ +40	°C
Storage Temperature	Tstg	-40 ~ +85	°C

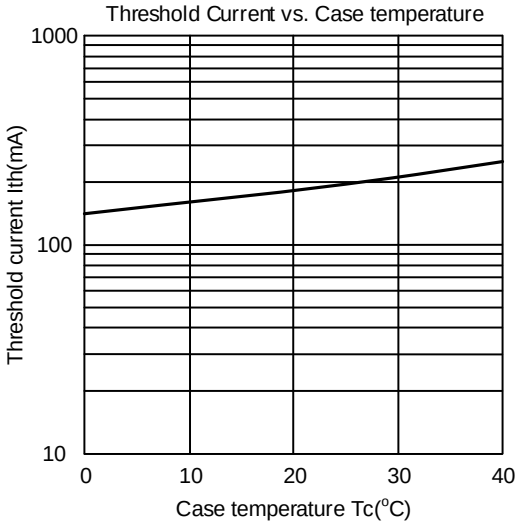
Note1) Operating temperature is defined by Case temperature “Tc”. High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It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

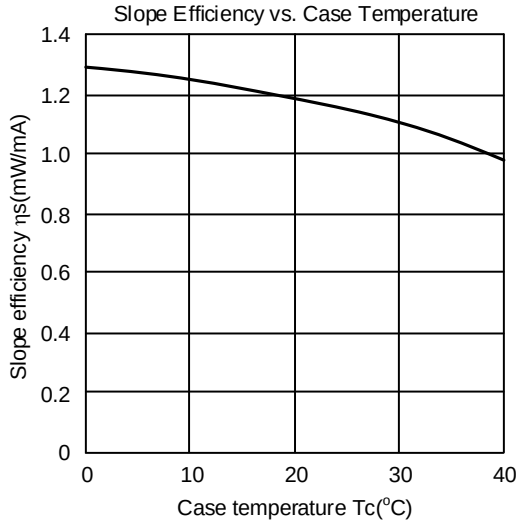
Optical and Electrical Characteristics (Tc=25°C)

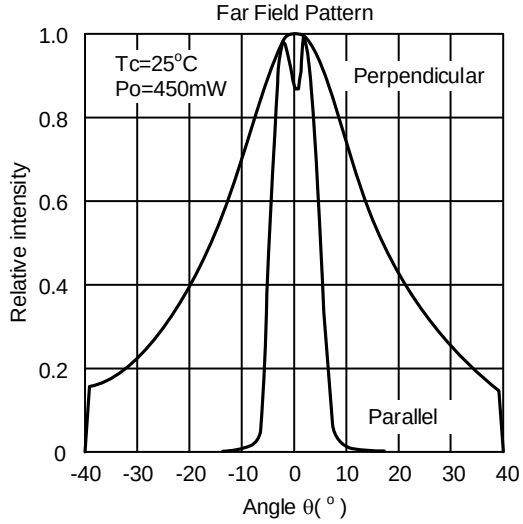
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	200	250	mA	-
Operating current	Iop	-	600	700	mA	Po=450mW
Operating voltage	Vop	-	2.2	2.6	V	Po=450mW
Beam divergence Parallel to the junction	θ//	1	8.5	20	o	Po=450mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	25	33	40	o	Po=450mW, FWHM
Lasing Wavelength	λp	632	637	642	nm	Po=450mW

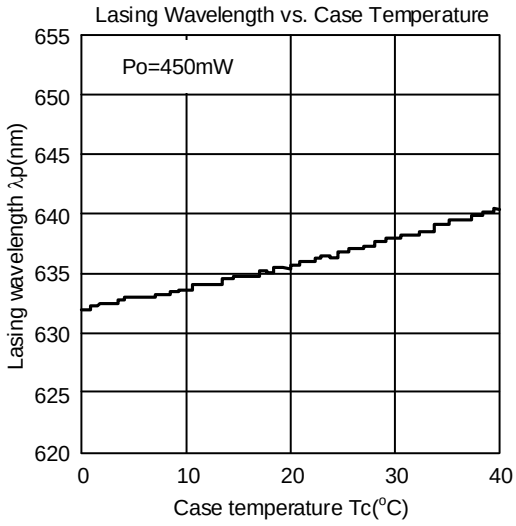
Typical Characteristic Curves











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