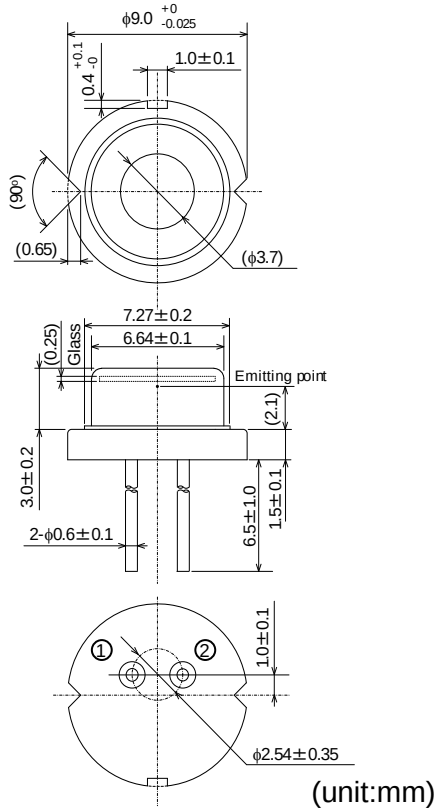
Data Sheet

HL63290HD

638nm／2.2W (CW)／2.5W (Pulse)
AlGaInP Laser Diode

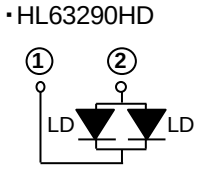
USHIO

Outline



(unit:mm)

Internal Circuit



Absolute Maximum Ratings (Tc=25°C)

Features

- Dual emitters
- Optical output power: 2.2W (CW)
  2.5W (Pulse)
- Shorter wavelength: 638nm Typ.
- High heat dissipation ϕ9mm CAN package
- Multi transverse mode
- TM mode oscillation

Application

- Laser Projector
- Light source of optical equipments

Item	Symbol	Ratings	Unit
Operating current Note3)	Iop	2.4	A
Pulse operating current Note2) Note3)	Iop(Pulse)	2.5	A
LD reverse voltage	$V_{R(LD)}$	2	V
Operating temperature Note3)	Topr	-10 ~ +55	°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.

Note2) Pulse condition: Pulse frequency≥120Hz, duty=30%

Note3) The relation of operating current vs operating temperature is based on Fig.1.

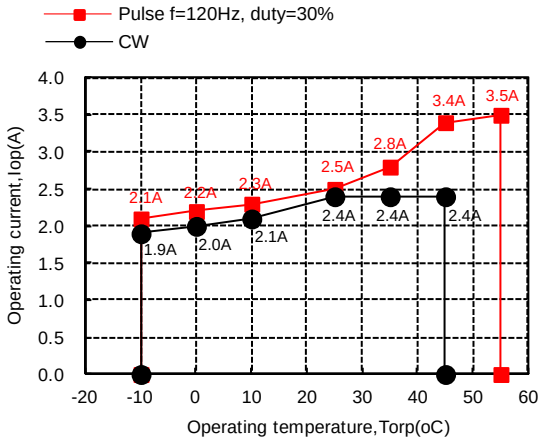


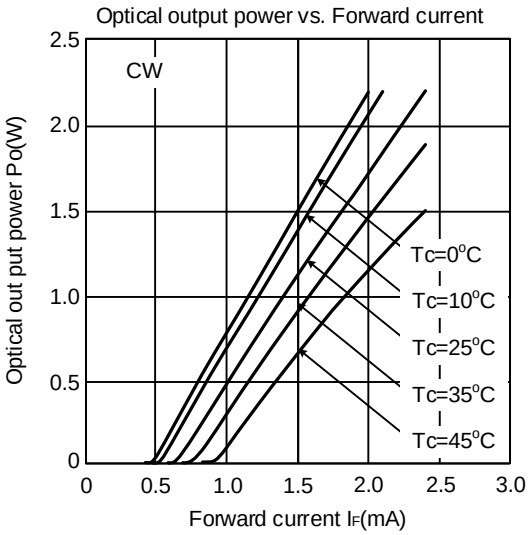
Fig.1 The relation of optical output power vs operating temperature

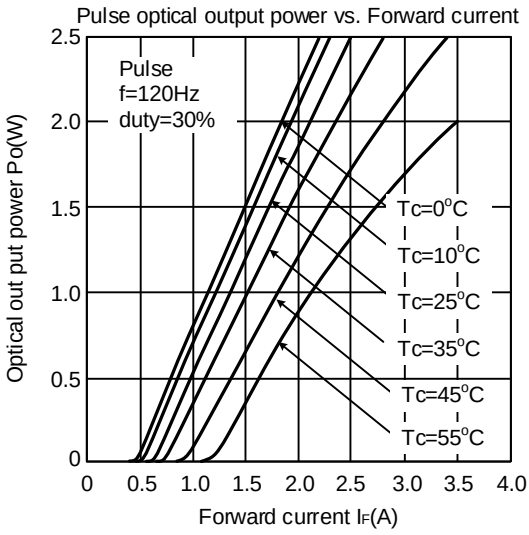
Optical and Electrical Characteristics (Tc=25°C,CW)

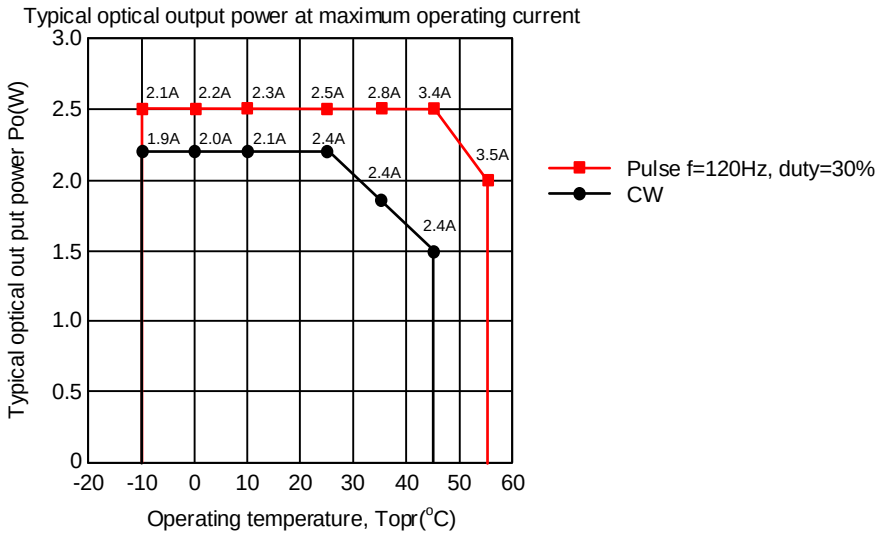
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Optical output power	Po	-	2.2	-	W	Iop=2.4A
Pulse optical output power	Po(Pulse)	-	2.5	-	W	Iop(Pulse)=2.5A, f=120Hz,duty=30%
Threshold current	Ith	-	600	750	mA	-
Operating voltage	Vop	-	2.4	2.8	V	Po=2W
Beam divergence Note4) Parallel to the junction	θ//	3	10	20	o	Po=2W, FWHM
Beam divergence Note4) Perpendicular to the junction	θ⊥	23	33	43	o	Po=2W, FWHM
Lasing Wavelength	λp	632	638	642	nm	Po=2W

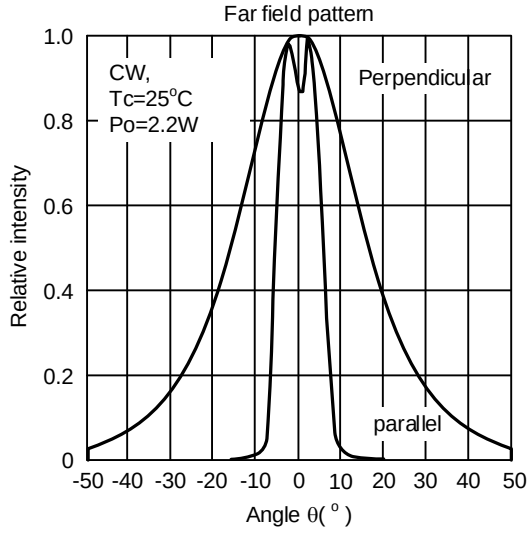
Note4) Designed value

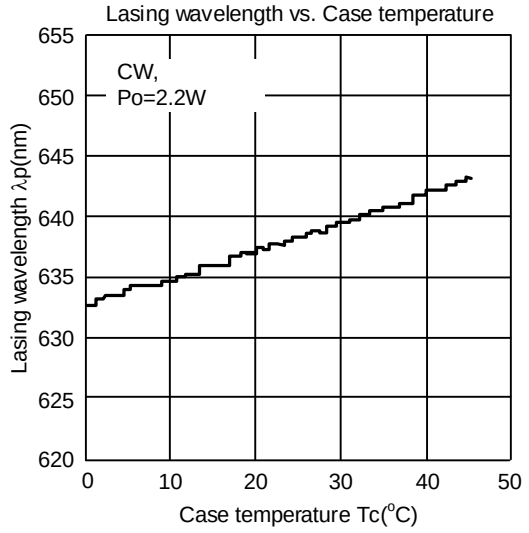
Typical Characteristic Curves











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