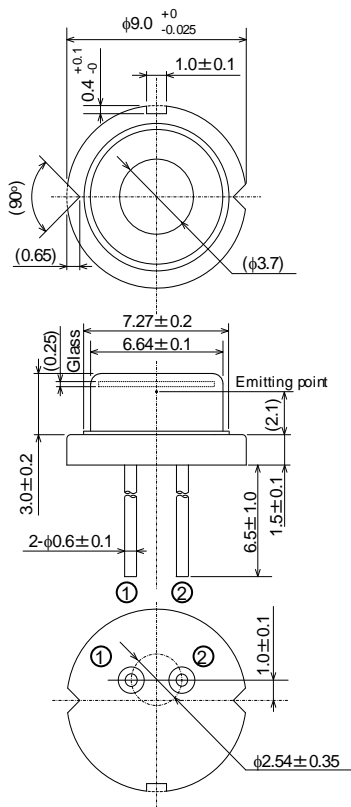




HL63713HD

635nm/1.3W AlGaInP Laser Diode

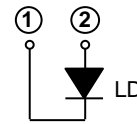
Outline



(Unit: mm)

Internal Circuit

HL63713HD



Features

- Single emitter
- Optical output power: 1.3W (CW)
- Shorter wavelength: 635nm Typ.
- High wall plug efficiency: 39% Typ.
- High heat dissipation $\phi 9$ mm CAN package
- Multi transverse mode
- TM mode oscillation

Application

- Photodynamic therapy
- Medical, healthcare
- Life science
- Laser modules

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power ^{Note2)}	Po	1.3	W
LD reverse voltage	V _{R(LD)}	2	V
Operating temperature ^{Note1) Note2)}	Topr	-10 ~ +45	°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) The relation of optical output power vs operating temperature is based on Fig.1.

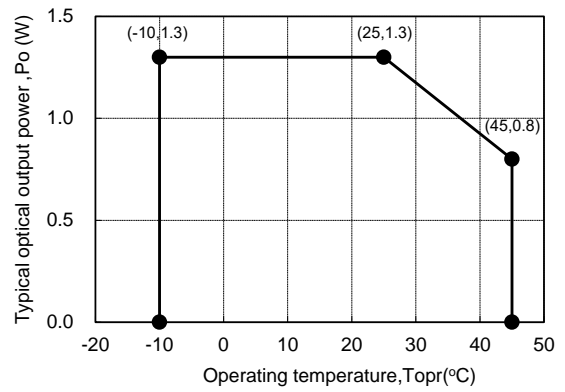
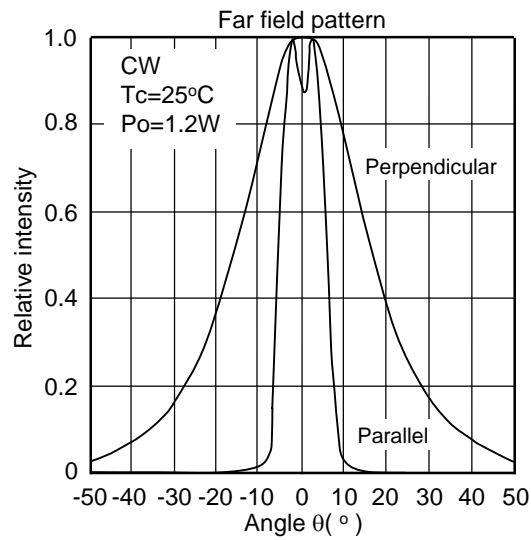
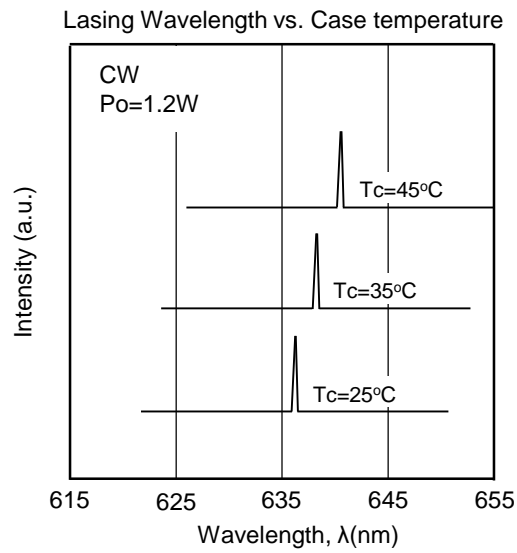
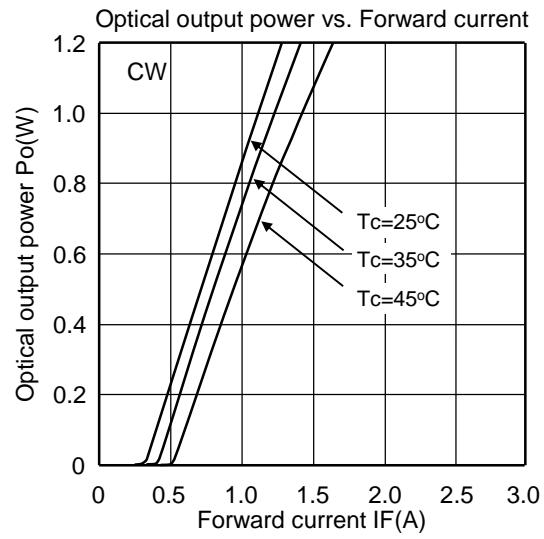


Fig.1 The relation of optical output power vs operating temperature

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	340	540	mA	-
Operating current	I _{op}	-	1350	1650	mA	Po=1.2W
Operating voltage	V _{op}	-	2.3	2.7	V	Po=1.2W
Beam divergence Parallel to the junction	θ _{//}	3	10	20	°	Po=1.2W, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	23	32	43	°	Po=1.2W, FWHM
Lasing Wavelength	λ _p	630	635	640	nm	Po=1.2W

Typical Characteristic Curves



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