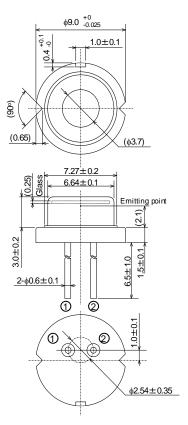
HL63713HD

635nm/1.3W AlGaInP Laser Diode

Outline



(Unit: mm)

Internal Circuit



Features

- Single emitter
- Optical output power: 1.3W (CW)
- Wavelength: 635nm Typ.
- High wall plug efficiency: 39% Typ.
- High heat dissipation φ 9mm 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)	Ро	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.

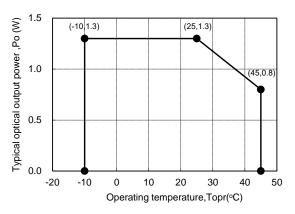
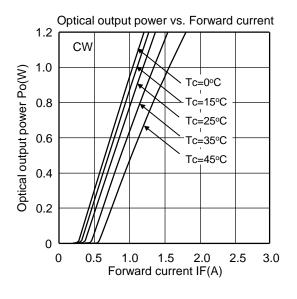


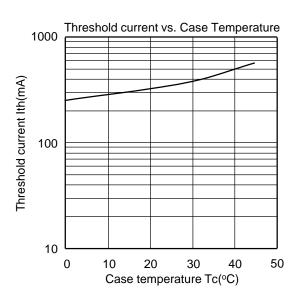
Fig.1 The relation of optical output power vs operating temperature

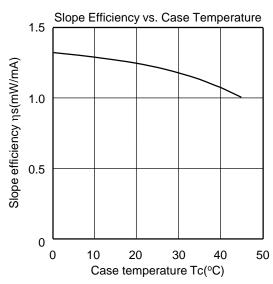
Optical and Electrical Characteristics (Tc=25°C)

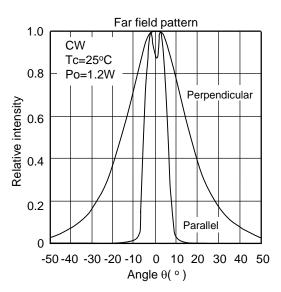
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	-	340	540	mA	-
Operating current	lop	-	1350	1650	mA	Po=1.2W
Operating voltage	Vop	-	2.3	2.7	V	Po=1.2W
Beam divergence Parallel to the junction	θ//	3	10	20	0	Po=1.2W, FWHM
Beam divergence Perpendicular to the junction	θΤ	23	33	43	0	Po=1.2W, FWHM
Lasing Wavelength	λр	630	635	640	nm	Po=1.2W

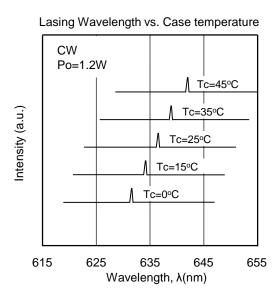
Typical Characteristic Curves













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