

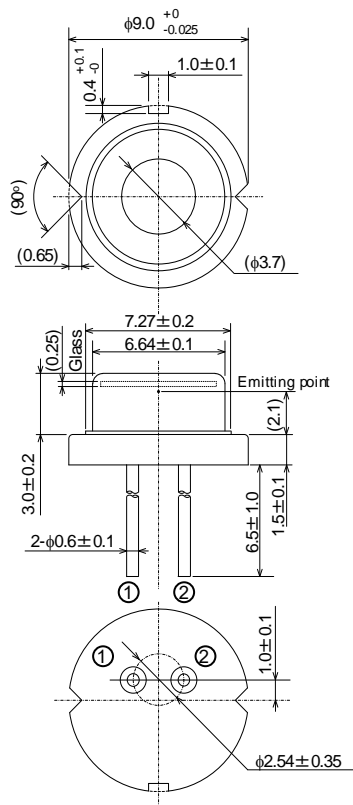


HL63373HD

638nm / 1.0W (CW) / 1.2W (Pulse)

AlGaInP Laser Diode

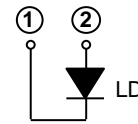
Outline



(Unit: mm)

Internal Circuit

HL63373HD



Features

- Visible light output: 638 nm Typ.
- Optical output power: 1.0W (CW), 1.2W (Pulse)
- High wall-plug efficiency: 41%
- Multi transverse mode
- TM mode oscillation
- High heat dissipation $\phi 9$ mm CAN package
- Small emitter size : 40um
- Expected lifetime : MTTF >1,000hrs

Application

- Show Laser
- Light source of optical equipment

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	1.1	W
Pulse optical output power ^{Note2)}	Po(Pulse)	1.3	W
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	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) Pulse condition: Pulse frequency \geq 120Hz, duty=30%

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}	-	1000	1300	mA	Po=1W
Operating voltage	V _{op}	-	2.4	2.8	V	Po=1W
Beam divergence Parallel to the junction	$\theta_{//}$	1	10	20	°	Po=1W, FWHM
Beam divergence Perpendicular to the junction	θ_{\perp}	25	35	45	°	Po=1W, FWHM
Lasing Wavelength	λ_p	632	638	644	nm	Po=1W

Note2) Design Value

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