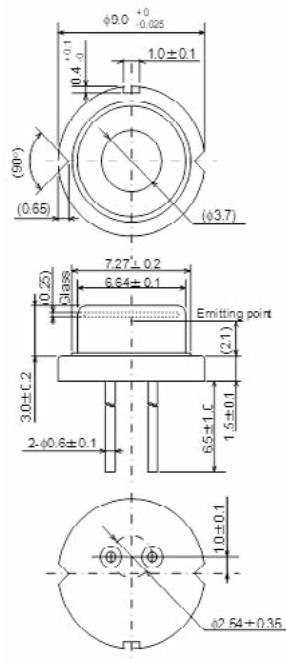


## HL63373HD

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

AlGaInP Laser Diode

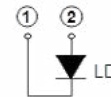
### Outline



(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 : 40 $\mu$ m
- Expected lifetime : MTTF >1,000hrs

### Application

- Show Laser
- Light source of optical equipment

## HL63373HD

Data Sheet

### Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	1.1	W
Pulse optical output power <sup>Note2)</sup>	Po(Pulse)	1.3	W
LD Reverse Voltage	VR(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 ≥ 120Hz, duty=30%

### Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	200	250	mA	-
Operating current	Iop	-	1000	1300	mA	Po=1W
Operating voltage	Vop	-	2.4	2.8	V	Po=1W
Beam divergence Parallel to the junction	θ//	1	10	20	°	Po=1W, FWHM
Beam divergence Perpendicular to the junction	θ⊥	25	35	45	°	Po=1W, FWHM
Lasing Wavelength	λp	632	638	644	nm	Po=1W

Note2) Design Value

## HL63373HD

Data Sheet

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1. The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.
2. This product (without violet laser diode) contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product. When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.

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Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## HL63373HD

Data Sheet

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