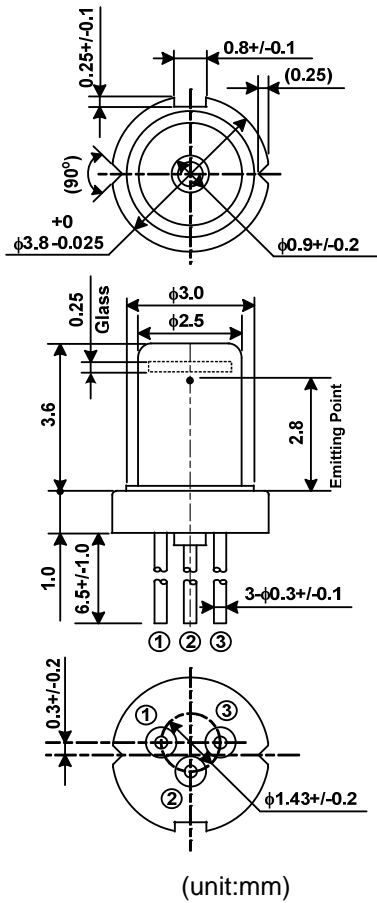


HL63153AT (preliminary)

AlGaInP Laser Diode

638nm/150mW

Outline



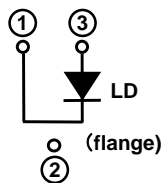
Features:

- High optical output power: 150mW
- Shorter wavelength: 638nm Typ.
- Small package: ϕ 3.8mm
- Low operating current: 230mA Typ.
- Low operating voltage: 2.7V Typ.
- Single transverse mode
- TE mode oscillation

Applications:

- Pico projector
- Laser module of small size
- Light source of optical equipment

Internal Circuit



(Note1) This product is under development. Therefore, the specification is changed without notice

Absolute Maximum Ratings (T_c=25°C)

Item	Symbol	Ratings	Unit
Optical output power(1) (-10 to +50 °C)	P _o (1)	150	mW
Optical output power(2) (+50 to +60 °C)	P _o (2)	120	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	T _{opr}	-10 ~ +60	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

Operating temperature “T_{opr}” is defined by Case temperature “T_c”. High increase in temperature of LD chip itself is expected during operation due to high current density and small package.

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.

Optical and Electrical Characteristics (T_c=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	75	100	mA	-
Operating current	I _{op}	-	230	300	mA	P _o =150mW
Operating voltage	V _{op}	-	2.7	3.1	V	P _o =150mW
Lasing Wavelength	λ _p	632	638	643	nm	P _o =150mW
Beam divergence Parallel to the junction	θ _{//}	5	8.5	13	°	P _o =150mW
Beam divergence Perpendicular to the junction	θ _⊥	13	18	23	°	P _o =150mW

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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.

Contact Information

www.oclaro.com

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