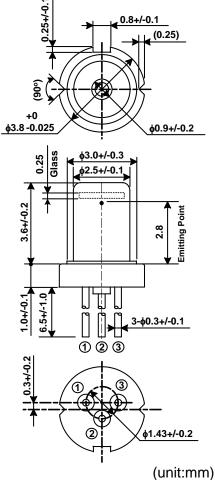
Data Sheet

## HL63153AT

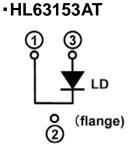
638nm/150mW AlGaInP Laser Diode

# USHIO





**Internal Circuit** 



#### **Features**

- Visible light output: 638nm Typ.
- Optical output power: 150mW (CW)
- Single transverse mode
- Low operating current: 230mA Typ.
- Low operating voltage: 2.7V Max.
- TE mode oscillation

## **Application**

- Pico projector
- Laser module
- Light source of optical equipments



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

Item	Symbol	Ratings	Unit
Optical output power(1) (-10 to +50 °C)	Po (1)	150	mW
Optical output power(2) (+50 to +60 °C)	Po (2)	120	mW
LD Reverse Voltage	VR(LD)	2	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Note: 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 degration. 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.

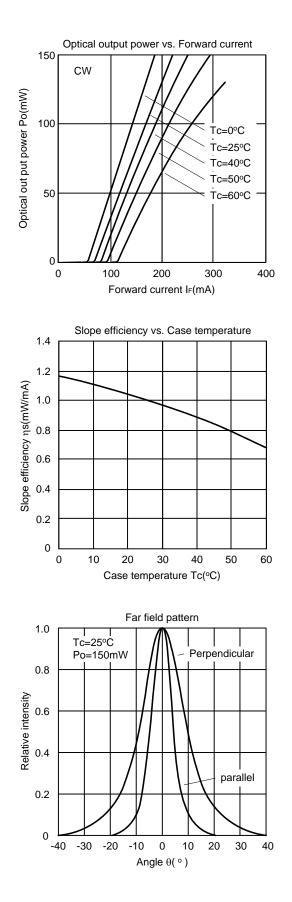
## **Optical and Electrical Characteristics (Tc=25°C)**

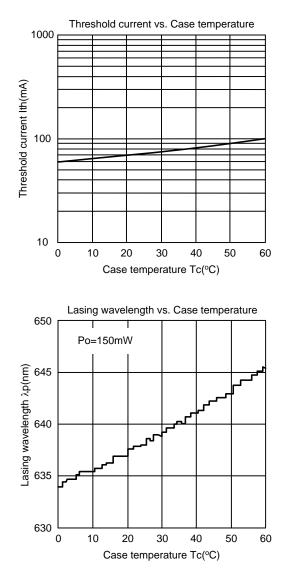
Parameter	Symbol	Min	Тур	Мах	Unit	Test Condition
Threshold current	lth	-	75	100	mA	-
Operating current	Іор	-	230	300	mA	Po=150mW
Operating voltage	Vop	-	2.7	3.1	V	Po=150mW
Beam divergence Parallel to the junction	θ//	5	8.5	13	0	Po=150mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	13	18	23	0	Po=150mW, FWHM
Lasing Wavelength	λρ	632	638	643	nm	Po=150mW

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#### **Typical Characteristic Curves**





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5. This product is not designed to be radiation resistant.

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7.Contact our sales office for any questions regarding this document or UOS products.

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.

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