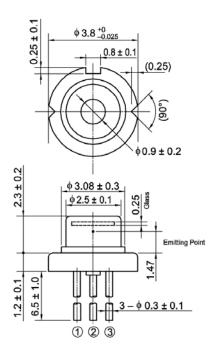
Data Sheet

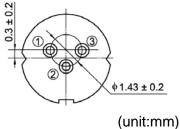
1L63603TG

638nm / 120mW AlGaInP Laser Diode



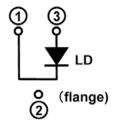
Outline





Internal Circuit

·HL63603TG



Features

- Visible light output: 638nm Typ.
- Optical output power: 120mW (CW)
- Single transverse mode
- Low operating current: 165mA Typ.
- Low operating voltage: 2.7V Max.
- Small package: \$43.8mm
- 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)	120	mW
Optical output power(2) (+50 to +60 °C)	Po (2)	90	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

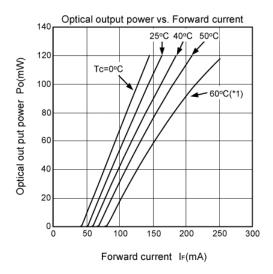
Optical and Electrical Characteristics (Tc=25°C)

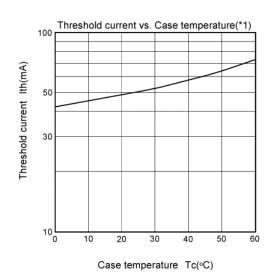
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	-	50	65	mA	-
Operating current	lop	-	165	200	mA	Po=120mW
Operating voltage	Vop	-	2.7	3.0	V	Po=120mW
Beam divergence Parallel to the junction	θ//	5	8.5	13	0	Po=120mW, FWHM
Beam divergence Perpendicular to the junction	θΤ	13	18	23	0	Po=120mW, FWHM
Lasing Wavelength	λр	632	638	642	nm	Po=120mW

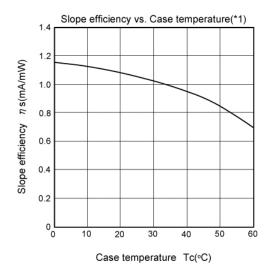
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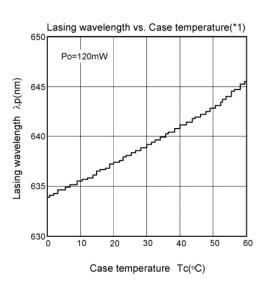


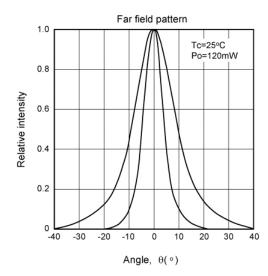
Typical Characteristic Curves











(*1) The data of Po>90mW at Tc>50°C is a reference.

The maximum rating of the optical output power in each operating temperature is as follows.

Po(1)=120mW (Topr=-10~50°C)

Po(2)=90mW(Topr=+50~+60°C)

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