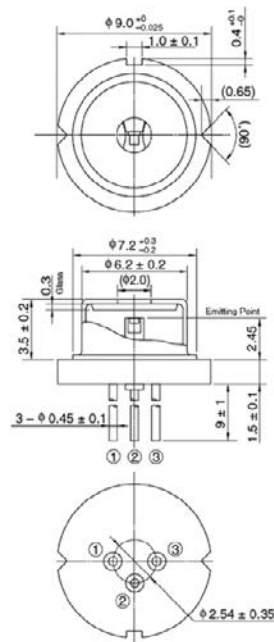


Data Sheet

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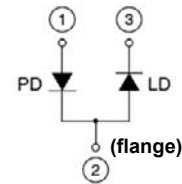
670nm / 10mW AlGaInP Laser Diode

Outline



(Unit:mm)

Internal Circuit



Features

- Operation temperature: $-10 \sim +50^\circ\text{C}$
- Optical output power: 10mW(CW)
- Visible lasing: 670nm Typ.
- Low operating voltage: 2.7V Max.
- Package: $\phi 9\text{mm}$
- Single transverse mode
- TE mode oscillation

Application

- Laser beam printer
- Measurement
- Sensing

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	P _o	10	mW
Pulse optical output power	P _{O(pulse)}	12*	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	T _{opr}	-10 ~ +50	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

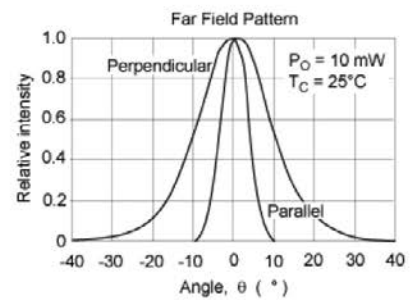
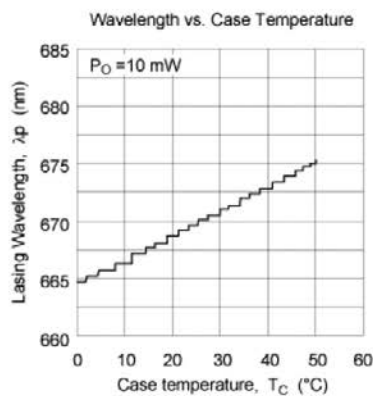
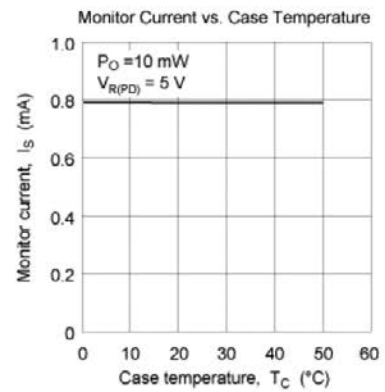
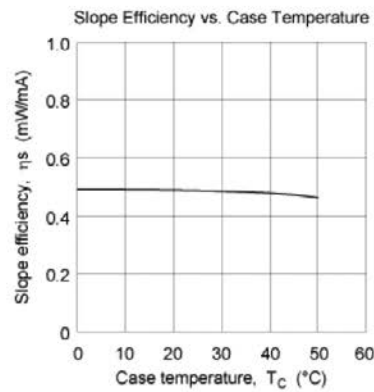
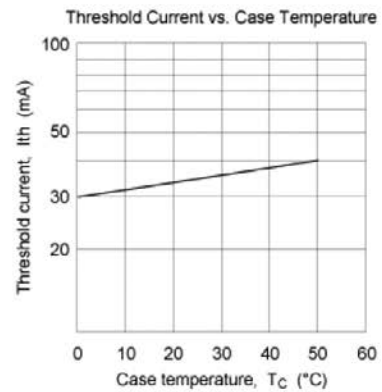
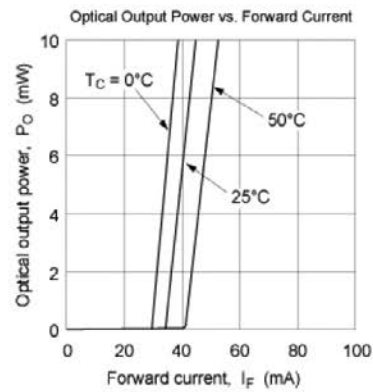
* Pulse condition: Pulse width ≤ 1 μs, duty ≤ 50%

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	20	30	60	mA	-
Operating voltage	V _{op}	-	-	2.7	V	P _o =10mW
Slope efficiency	η _s	0.3	0.5	0.8	mW/mA	6(mW)/(I _(8mW) -I _(2mW))
Beam divergence Parallel to the junction	θ _{//}	5	8	11	°	P _o =10mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	18	22	30	°	P _o =10mW, FWHM
Lasing Wavelength	λ _p	660	670	680	nm	P _o =10mW
Monitor Current	I _s	0.3	0.9	1.5	mA	P _o =10mW, V _{R(PD)} =5V

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Typical Characteristic Curves



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