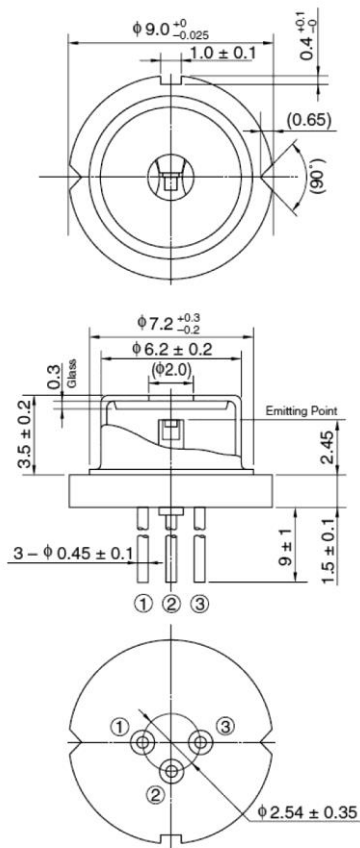


HL6714G

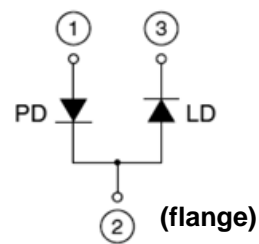
670nm / 10mW AlGaInP Laser Diode

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)

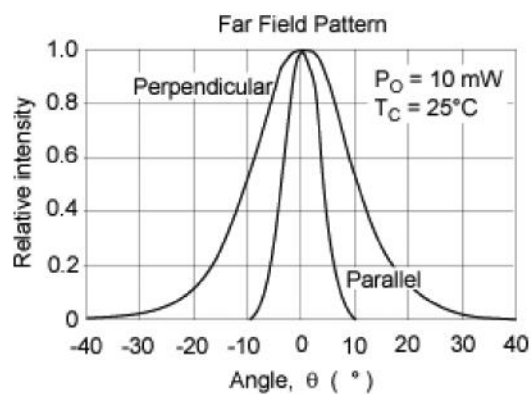
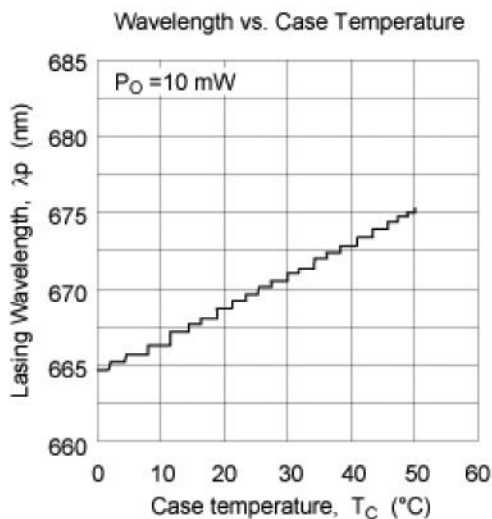
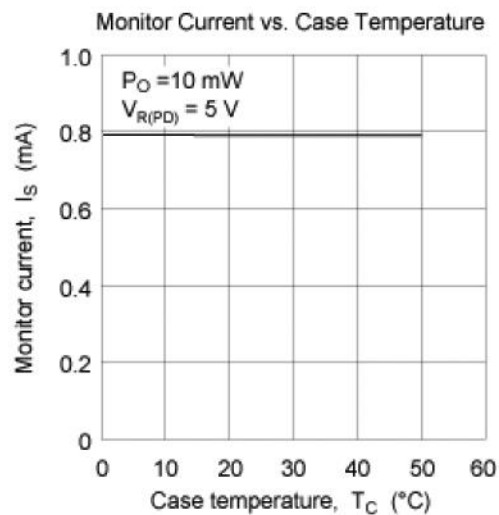
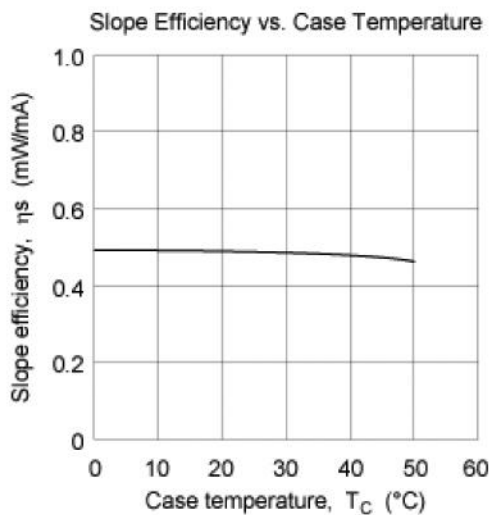
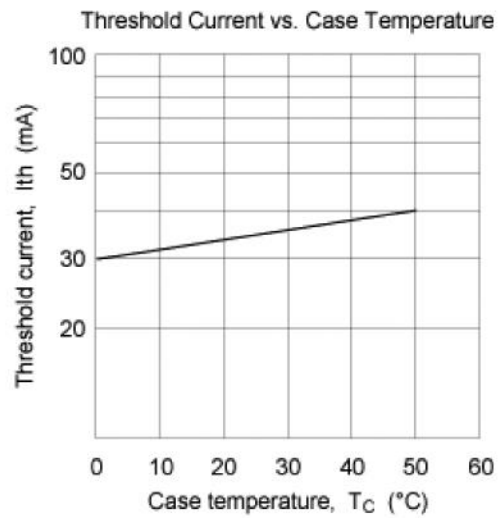
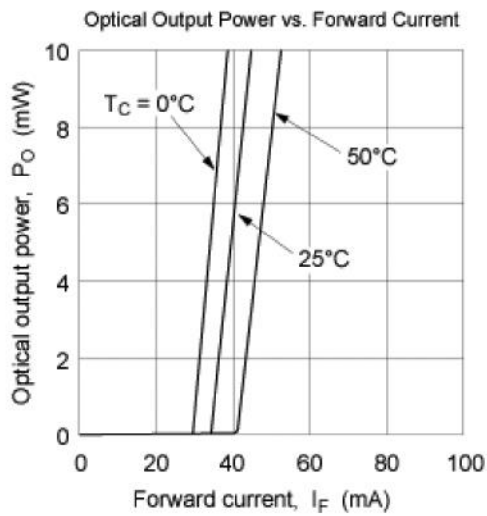
Item	Symbol	Ratings	Unit
Optical output power	Po	10	mW
Pulse optical output power	PO(pulse)	12*	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage	VR(PD)	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

* Pulse condition: Pulse width \leq 1 μ s, duty \leq 50%

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	20	30	60	mA	-
Operating voltage	Vop	-	-	2.7	V	Po=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	$\theta_{//}$	5	8	11	°	Po=10mW, FWHM
Beam divergence Perpendicular to the junction	θ_{\perp}	18	22	30	°	Po=10mW, FWHM
Lasing Wavelength	λ_p	660	670	680	nm	Po=10mW
Monitor Current	Is	0.3	0.9	1.5	mA	Po=10mW, VR(PD)=5V

Typical Characteristic Curves



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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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