
HL6714G

AlGaInP Laser Diode



ODE-208-192C (Z)

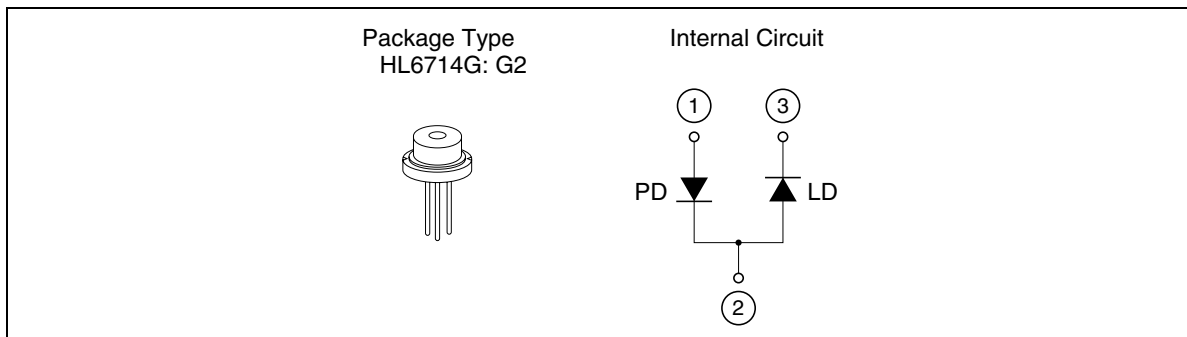
Rev.3
Jan. 2003

Description

The HL6714G is a 0.67 μm band AlGaInP index-guided laser diode with a multi-quantum well (MQW) structure. It is suitable as a light source for laser beam printers, levelers and various other types of optical equipment. Hermetic sealing of the package assures high reliability.

Features

- Visible light output at wavelengths up to 680 nm
- Single longitudinal mode
- Low astigmatism: 10 μm Typ
- High output power: 10 mW (CW)
- Built-in monitor photodiode



HL6714G

Absolute Maximum Ratings

($T_c = 25^\circ\text{C}$)

Item	Symbol	Rated Value	Unit
Optical output power	P_o	10	mW
Pulse optical output power	$P_{O(\text{pulse})}$	12 *	mW
LD reverse voltage	$V_{R(\text{LD})}$	2	V
PD reverse voltage	$V_{R(\text{PD})}$	30	V
Operating temperature	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

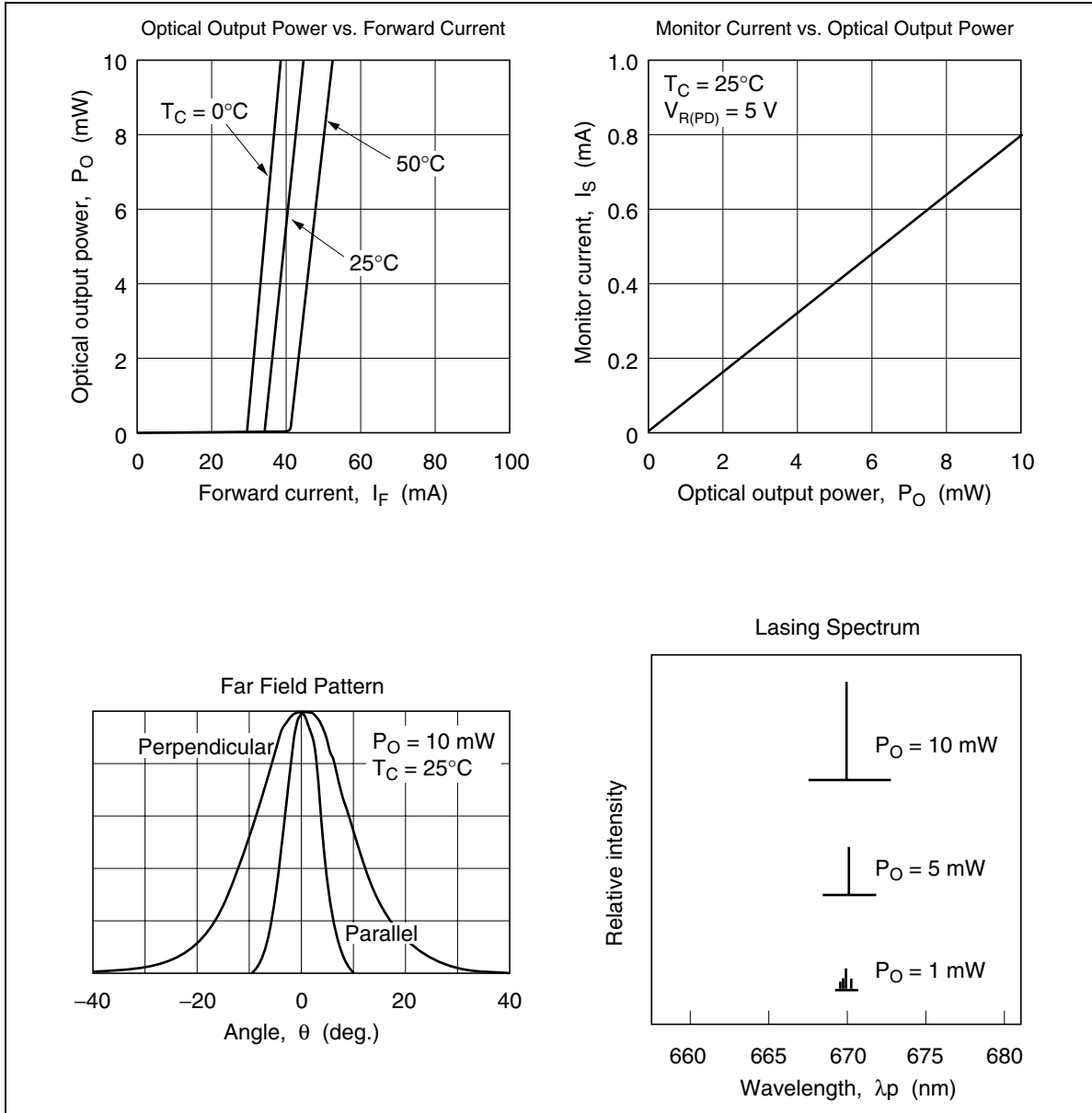
Note: Pulse condition : Pulse width $\leq 1 \mu\text{s}$, duty $\leq 50\%$

Optical and Electrical Characteristics

($T_c = 25^\circ\text{C}$)

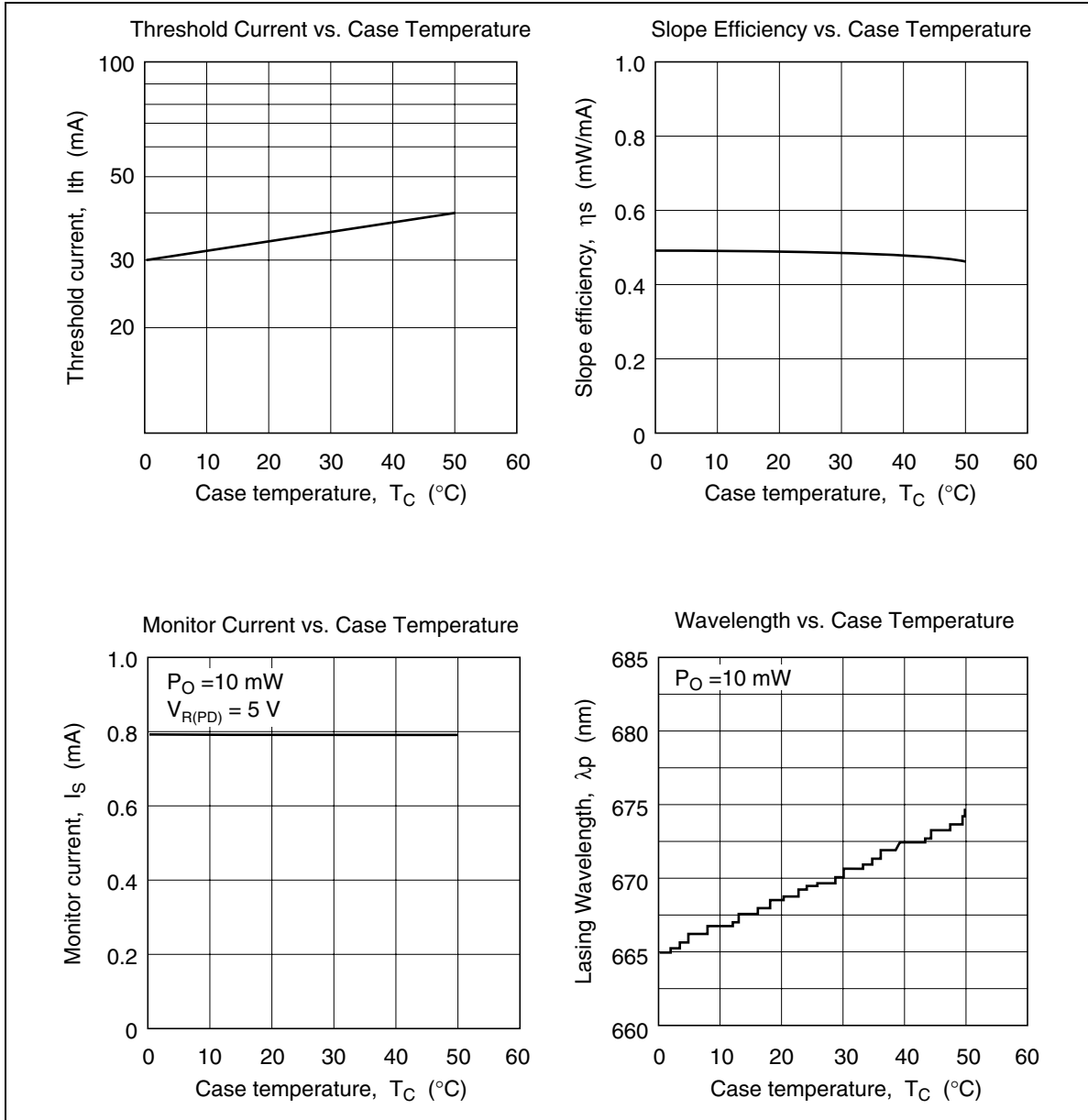
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P_o	10	—	—	mW	—
Threshold current	I_{th}	20	35	60	mA	—
LD operating voltage	V_{OP}	—	—	2.7	V	$P_o = 10 \text{ mW}$
Slope efficiency	η_s	0.3	0.5	0.8	mW/mA	$6 \text{ (mW)} / (I_{(8\text{mW})} - I_{(2\text{mW})})$
Beam divergence parallel to the junction	$\theta_{//}$	5	8	11	deg.	$P_o = 10 \text{ mW}$, FWHM
Beam divergence parpendicular to the junction	θ_{\perp}	18	22	30	deg.	$P_o = 10 \text{ mW}$, FWHM
Astigmatism	A_s	—	10	—	μm	$P_o = 10 \text{ mW}$, NA = 0.55
Lasing wavelength	λ_p	660	670	680	nm	$P_o = 10 \text{ mW}$
Monitor current	I_s	0.3	0.8	1.5	mA	$P_o = 10 \text{ mW}$, $V_{R(\text{PD})} = 5 \text{ V}$

Typical Characteristic Curves

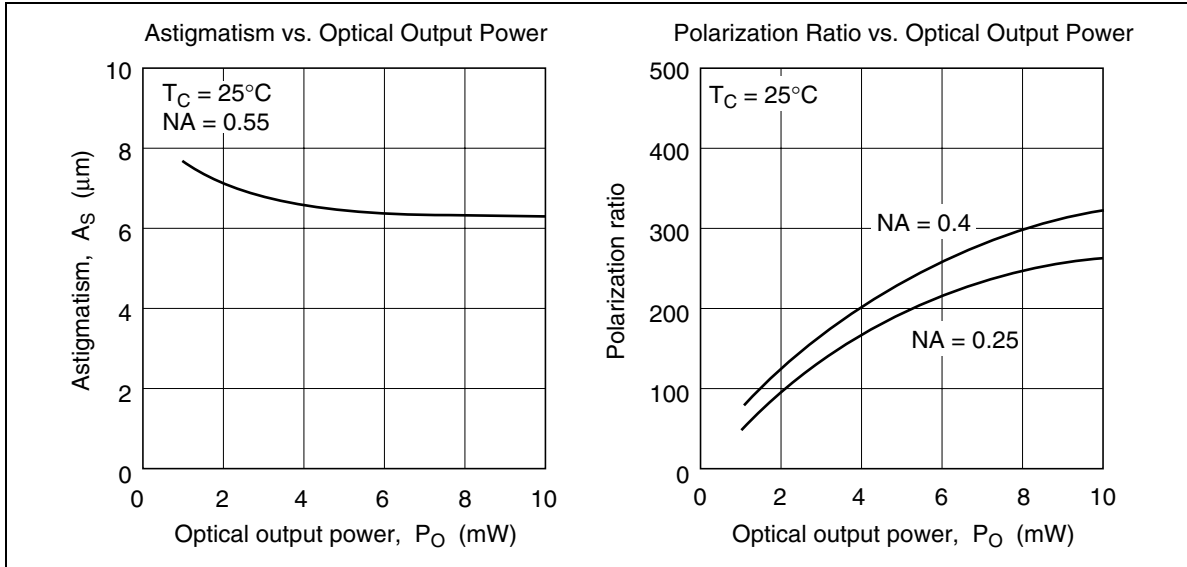


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Typical Characteristic Curves (cont)



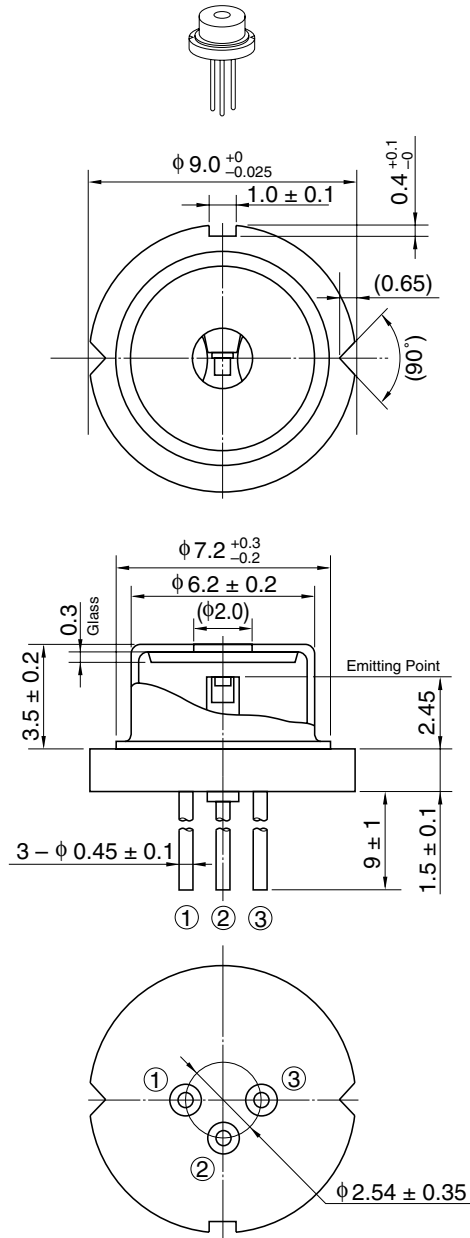
Typical Characteristic Curves (cont)



HL6714G

Package Dimensions

As of July, 2002
Unit: mm



OPJ Code	LD/G2
JEDEC	—
JEITA	—
Mass (reference value)	1.1 g

Cautions

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Sales Offices



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