HL6722G

AlGaInP Laser Diode

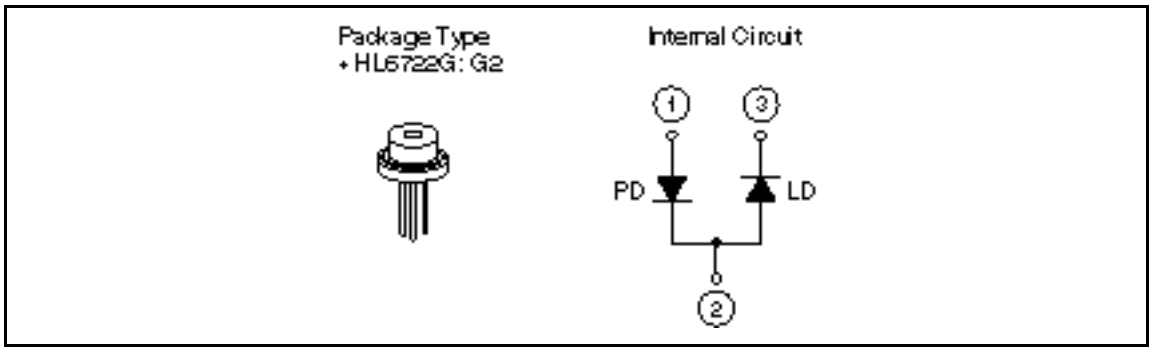
HITACHI

Description

The HL6722G 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 bercode scanner, 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
- Continuous operating output: 5 mW CW
- Low voltage operation: 2.7 V Max
- Low current operation: 32 mA Typ
- Single longitudinal mode
- Built-in monitor photodiode



Absolute Maximum Ratings (T_C = 25°C)

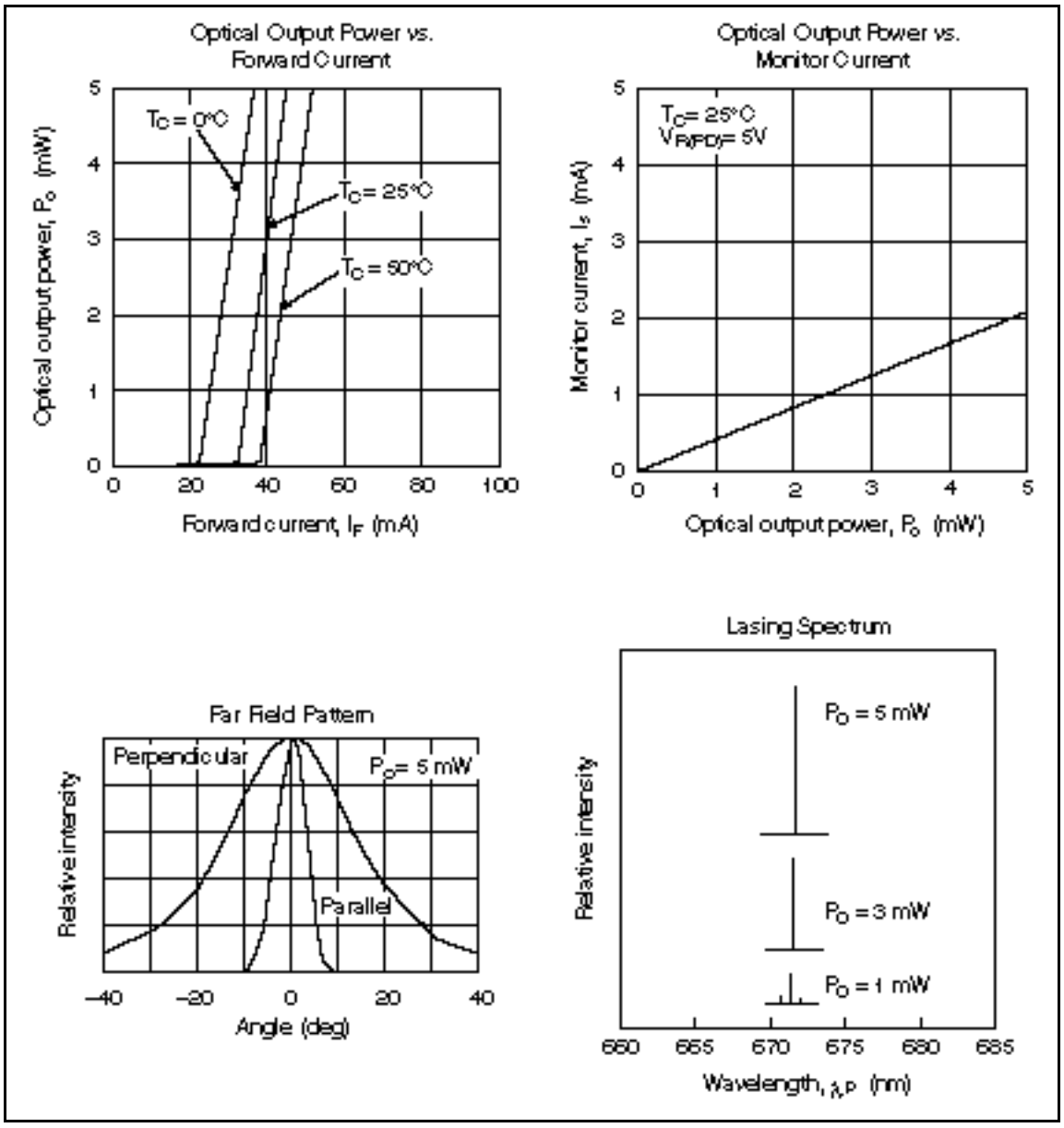
Item	Symbol	Rated Value	Unit
Optical output power	P_O	5	mW
Pulse optical output power	$P_{O\ (pulse)}$	6*[1]	mW
LD reverse voltage	$V_{R\ (LD)}$	2	V
PD reverse voltage	$V_{R\ (PD)}$	30	V
Operating temperature	Topr	–10 to +50	°C
Storage temperature	Tstg	–40 to +85	°C

Note: 1. Maximum 50% duty cycle, maximum 1 µs pulse width

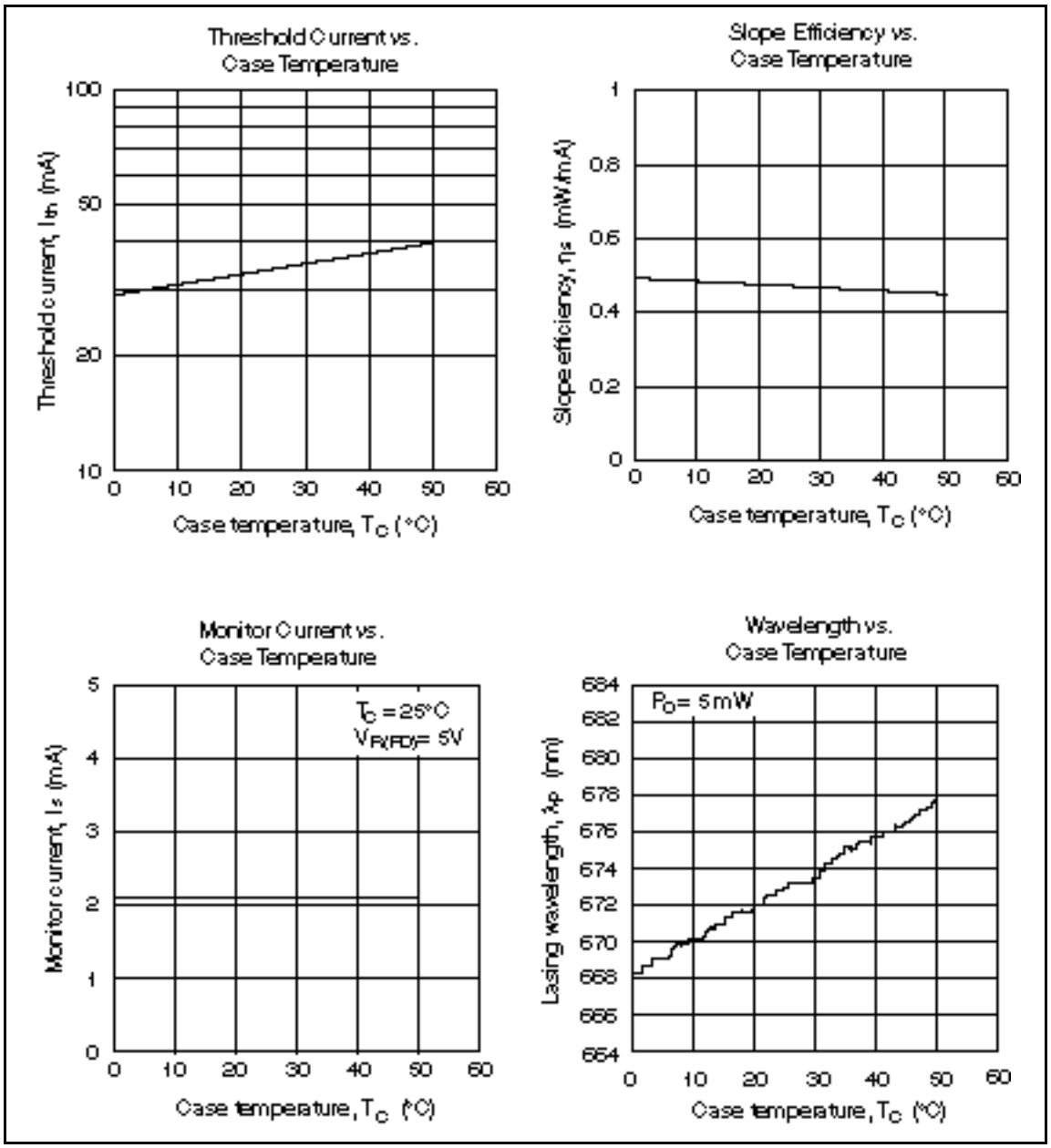
Optical and Electrical Characteristics (T_C = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P_O	5	—	—	mW	Kink free
Threshold current	Ith	20	32	55	mA	
Slope efficiency	η	0.3	0.5	0.7	mW/mA	3 mW/$I_{(4\ mW)}$ – $I_{(1\ mW)}$
LD operating current	Iop	—	42	70	mA	P_O = 5 mW
LD operating voltage	Vop	—	—	2.7	V	P_O = 5 mW
Lasing wavelength	λp	660	670	680	nm	P_O = 5 mW
Beam divergence (parallel)	θ//	5	8	11	deg.	P_O = 5 mW
Beam divergence (perpendicular)	θ	22	30	38	deg.	P_O = 5 mW
Monitor current	Is	1	—	3	mA	P_O = 5 mW, V_R = 5 V

Typical Characteristic Curves



Typical Characteristic Curves (cont)



Typical Characteristic Curves (cont)