HL6724MG

AlGalnP Laser Diode

HITACHI

Literature Order Number
Rev 0
February 1997

Description

The HL6724MG is a 0.67 μm band AlGalnP laser diode with a multi-quantum well (MQW) structure. It is suitable as a light source for laser pointers and optical equipments for amusement.

Features

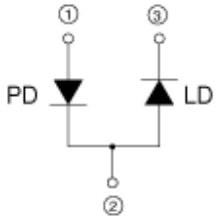
- Visible light output: 670nm Typ
- Optical output power: 5 mW CW
- Low operating current: 35 mA Typ
- Low operating voltage: 2.7 V Max

Hitachi semiconductor

Package Type
HL6724MG: MG



Internal Circuit
HL6724MG



Absolute Maximum Ratings (T_C = 25°C)

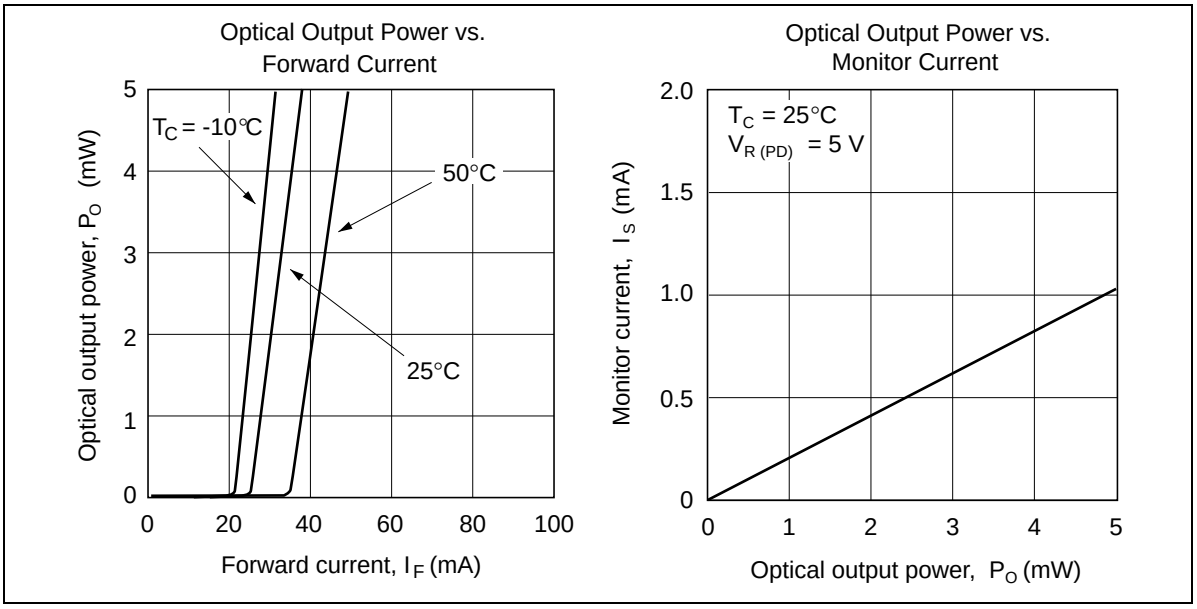
Item	Symbol	Rated Value	Unit
Optical output power	P_O	5	mW
Pulse optical output power	$P_{O\ (pulse)}$	6*[1]	mW
LD reverse voltage	$V_{R\ (LD)}$	2	V
PD reverse voltage	$V_{R\ (PD)}$	30	V
Operating temperature	Topr	–10 to +50	°C
Storage temperature	Tstg	–40 to +85	°C

Note: 1. Pulse condition: Pulse width ≤1µs, duty ≤50%

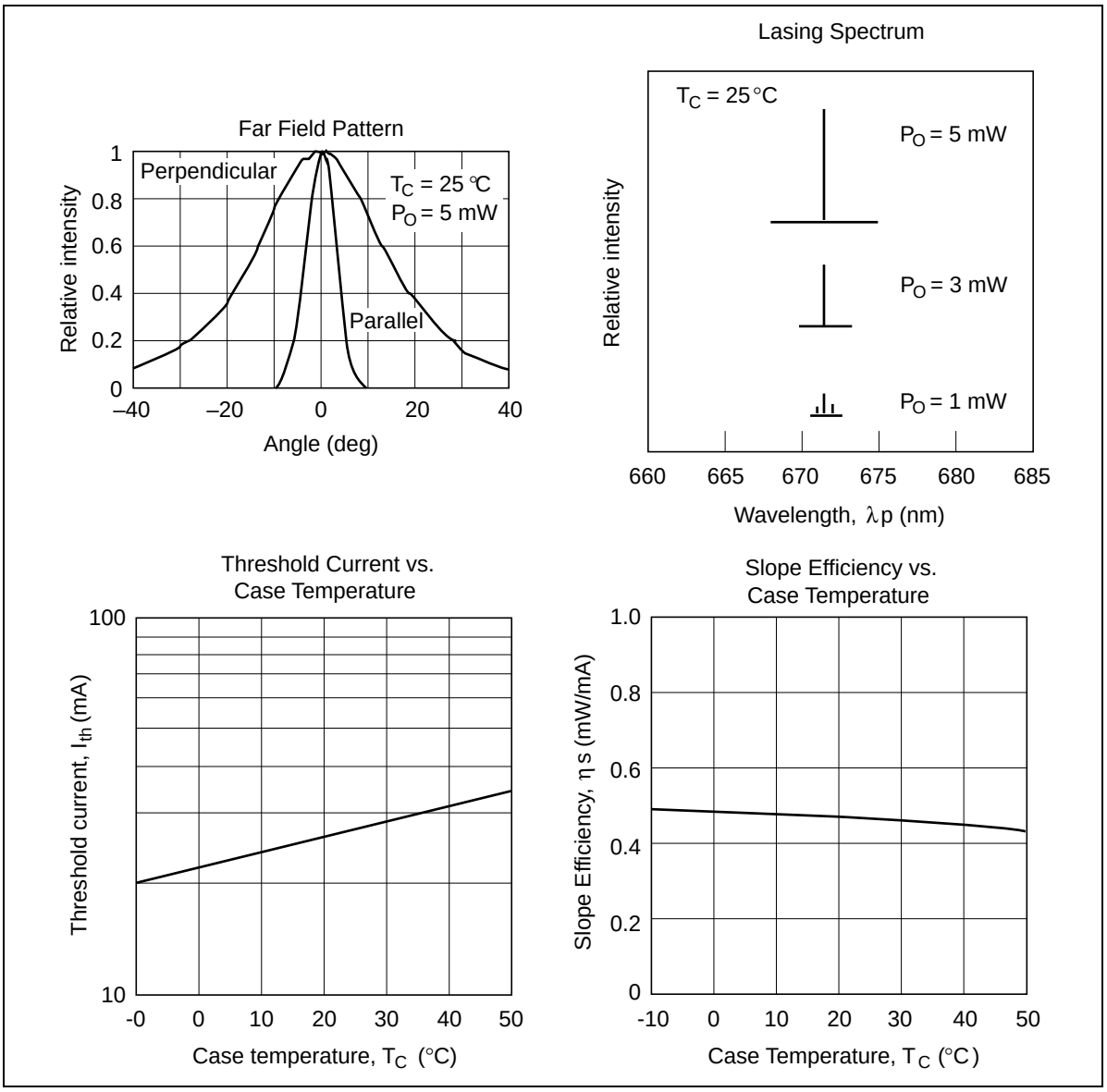
Optical and Electrical Characteristics (T_C = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P_O	5	—	—	mW	Kink free
Threshold current	Ith	—	25	—	mA	
Operating current	Iop	—	35	—	mA	P_O = 5 mW
Operating voltage	Vop	—	—	2.7	V	P_O = 5 mW
Lasing wavelength	λp	660	670	680	nm	P_O = 5 mW
Beam divergence (parallel)	$\theta_{//}$	5	8	11	deg.	P_O = 5 mW
Beam divergence (perpendicular)	$\theta_{\perp}$	22	30	40	deg.	P_O = 5 mW
Monitor current	I_S	—	0.9	—	mA	P_O = 5 mW, $V_{R(PD)}$ = 5 V

Typical Characteristic Curves



Typical Characteristic Curves (cont)



Typical Characteristic Curves (cont)

