

---

# HL6724MG

AlGaInP Laser Diode

# HITACHI

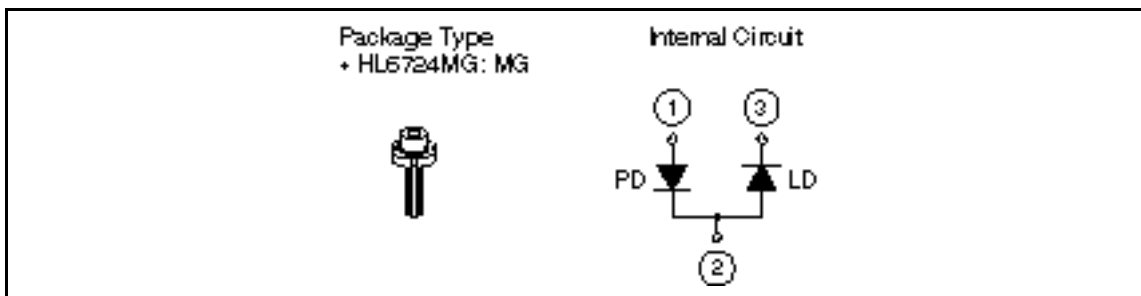
---

## Description

The HL6724MG is a 0.67  $\mu\text{m}$  band AlGaInP 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



**Absolute Maximum Ratings ( $T_C = 25^\circ\text{C}$ )**

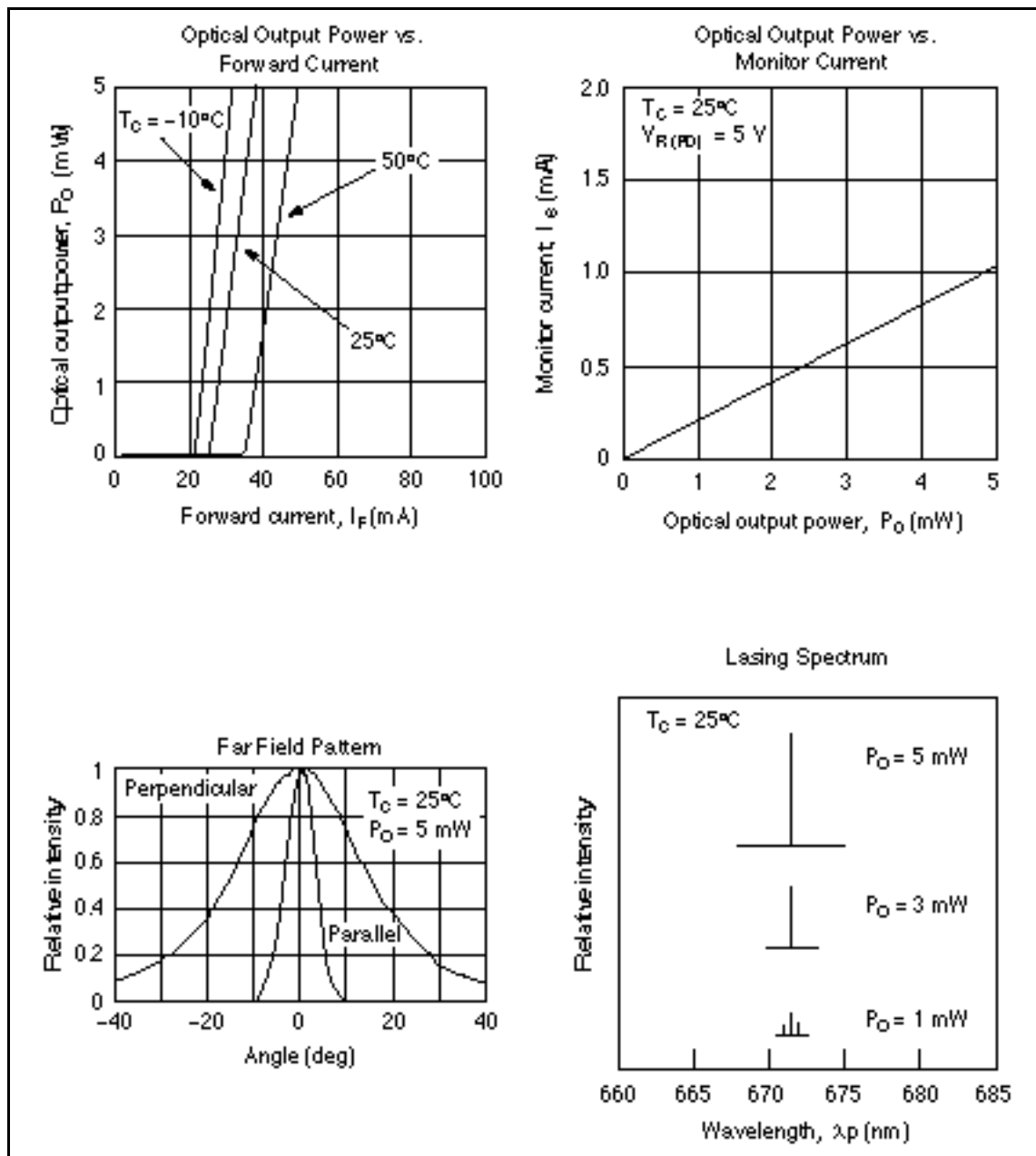
Item	Symbol	Rated Value	Unit
Optical output power	$P_O$	5	mW
Pulse optical output power	$P_{O(\text{pulse})}$	6* <sup>1</sup>	mW
LD reverse voltage	$V_{R(\text{LD})}$	2	V
PD reverse voltage	$V_{R(\text{PD})}$	30	V
Operating temperature	$T_{\text{opr}}$	-10 to +50	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-40 to +85	$^\circ\text{C}$

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

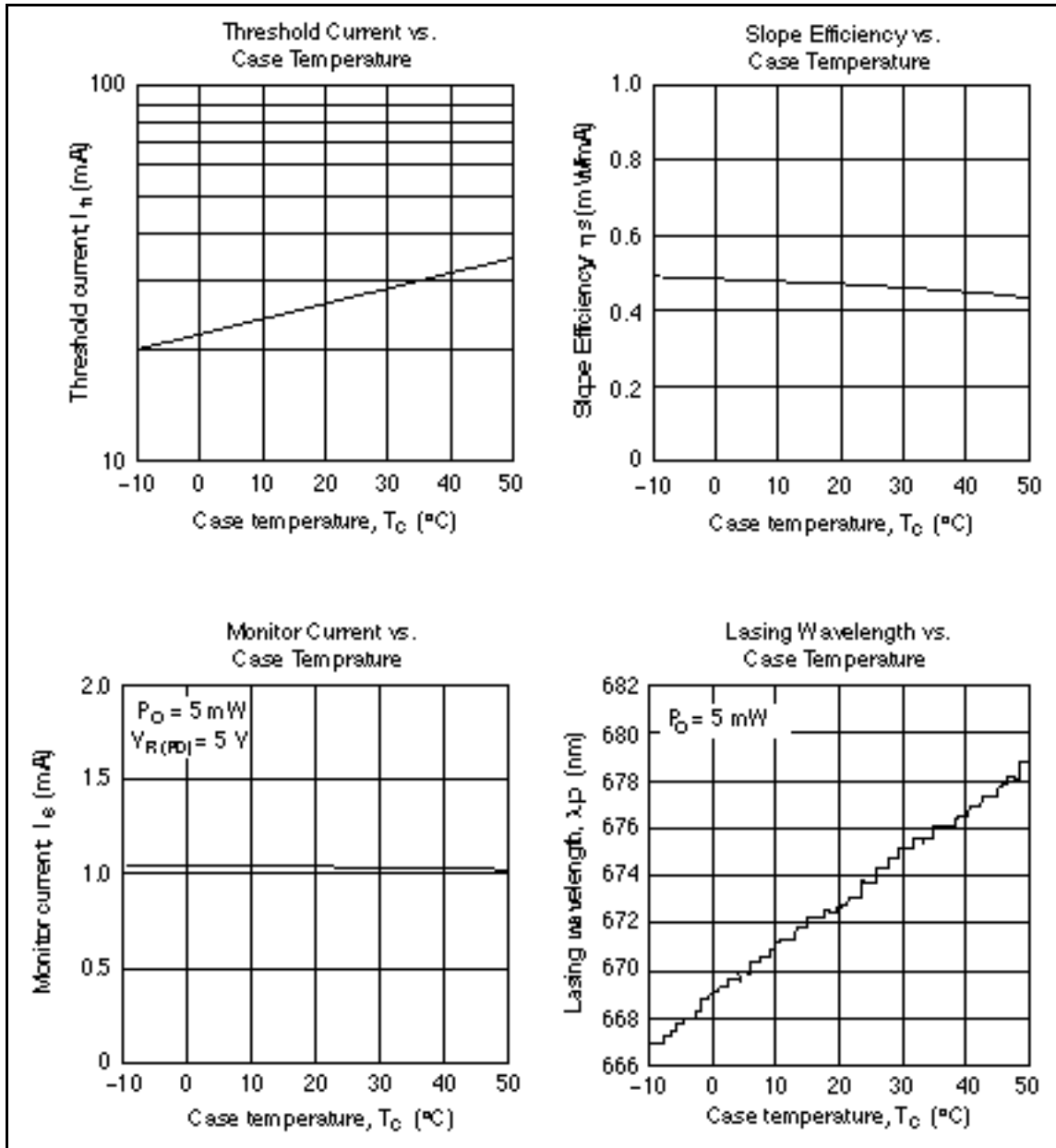
**Optical and Electrical Characteristics ( $T_C = 25^\circ\text{C}$ )**

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	$P_O$	5	—	—	mW	Kink free
Threshold current	$I_{\text{th}}$	—	25	35	mA	
Operating current	$I_{\text{op}}$	—	35	50	mA	$P_O = 5 \text{ mW}$
Operating voltage	$V_{\text{op}}$	—	—	2.7	V	$P_O = 5 \text{ mW}$
Lasing wavelength	$\lambda$	660	670	680	nm	$P_O = 5 \text{ mW}$
Beam divergence (parallel)	//	5	8	11	deg.	$P_O = 5 \text{ mW}$
Beam divergence (perpendicular)		22	30	40	deg.	$P_O = 5 \text{ mW}$
Monitor current	$I_s$	0.4	0.9	2	mA	$P_O = 5 \text{ mW}$ , $V_{R(\text{PD})} = 5 \text{ V}$

Typical Characteristic Curves



Typical Characteristic Curves (cont)



**Typical Characteristic Curves (cont)**