

HL6545MG

Visible High Power Laser Diode for Recordable-DVD

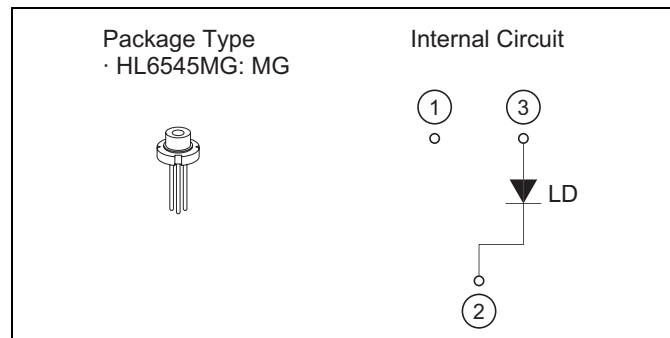
ODE-208-038C (Z)
Rev.3
Feb. 24, 2006

Description

The HL6545MG is a 0.65 μm band AlGaInP laser diode (LD) with a multi-quantum well (MQW) structure. It is suitable as a light source for large capacity optical disc memories, such as H/H type Recordable-DVD, and various other types of optical equipment.

Features

- Operating temperature: 75°C Max
(300 mW(pulse), pw = 30 ns, duty = 35 %)
- Visible light output : $\lambda_p = 660 \text{ nm Typ}$
- Low operating current :
I_{op}(1) = 170 mA Typ (P_o = 120 mW)
I_{op}(2) = 345 mA Typ
(P_o = 300 mW(pulse), pw = 30 ns, duty = 35 %)



Note: This type is under development. Therefore, this data sheet may be changed without notice.

Absolute Maximum Ratings

(T_C = 25°C)

Item	Symbol	Ratings	Unit
Optical output power	P _O	130	mW
Pulse optical output power	P _{O(pulse)}	300 *	mW
LD reverse voltage	V _{R(LD)}	2	V
CW Operating temperature	T _{opr(CW)}	-10 to +75	°C
Pulse Operating temperature	T _{opr(pulse)}	-10 to +75	°C
Storage temperature	T _{stg}	-40 to +85	°C

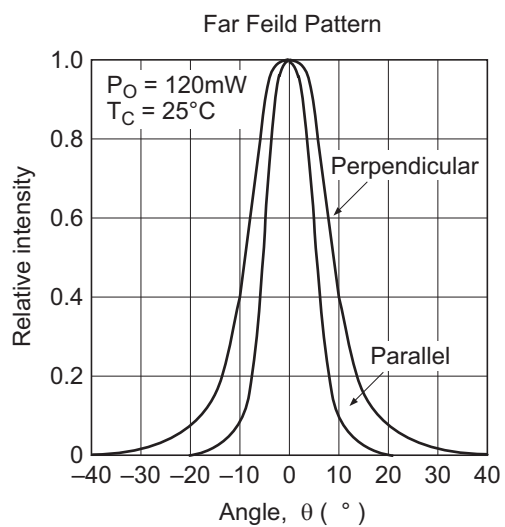
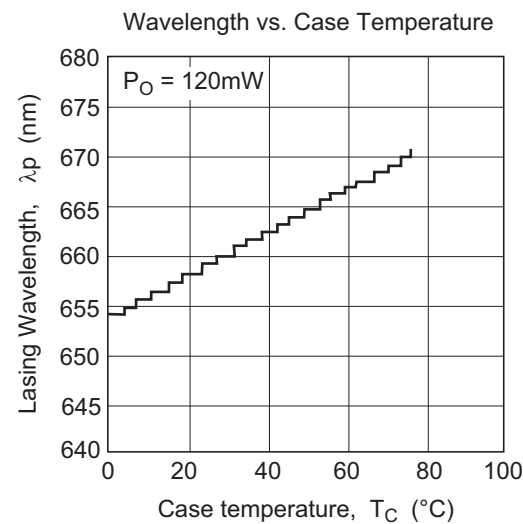
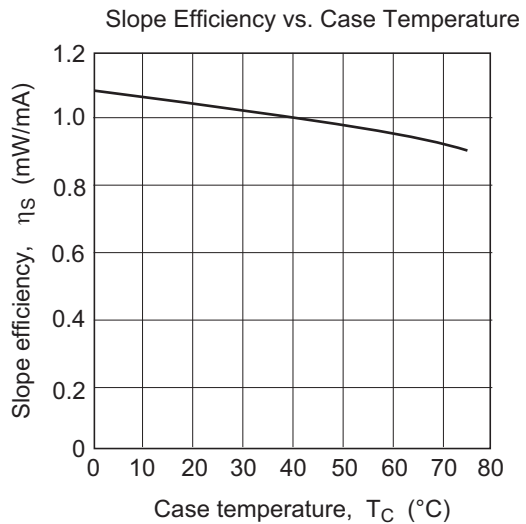
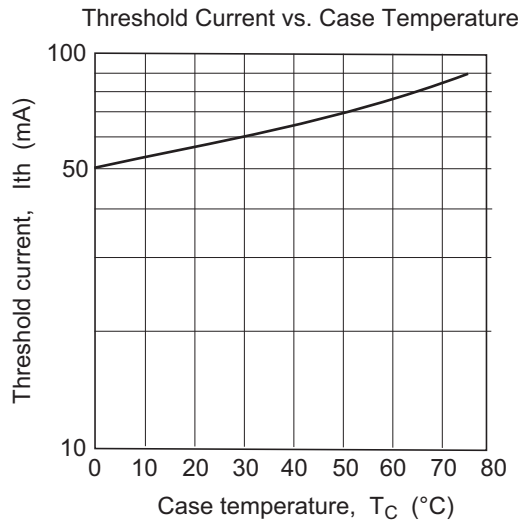
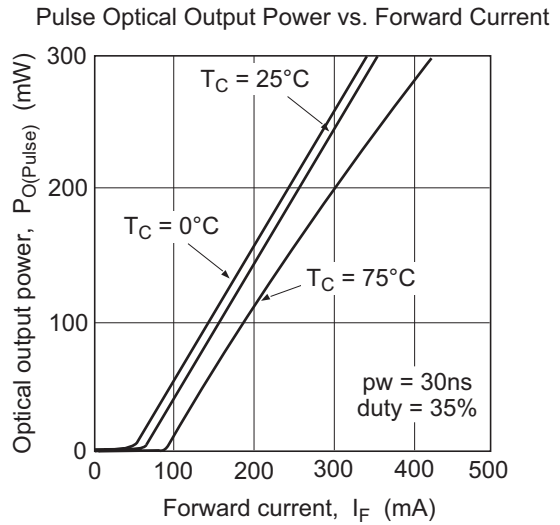
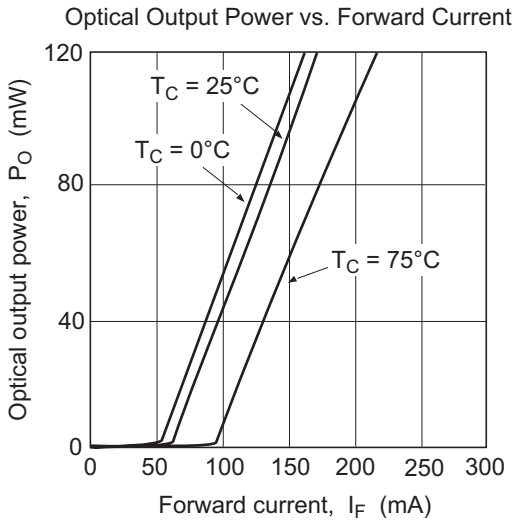
Note: Pulse condition : Pulse width = 30 ns , duty = 35 %

Electrical Characteristics

(T_C = 25°C)

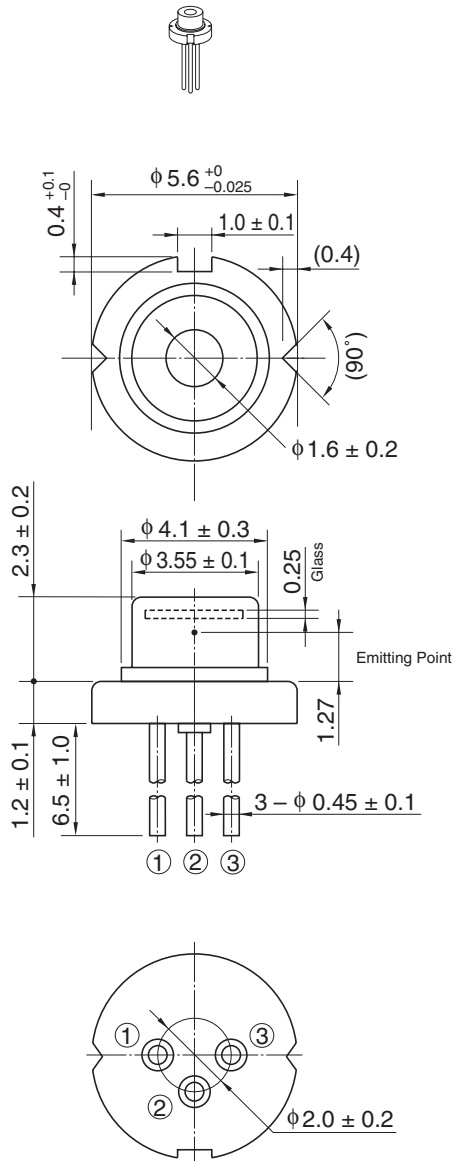
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I _{th}	—	55	75	mA	—
Operating current(1)	I _{OP} (1)	—	170	210	mA	P _O = 120 mW
Operating current(2)	I _{OP} (2)	—	345	—	mA	P _O = 300 mW(pulse) pw = 30 ns, duty = 35 %
Operating voltage	V _{OP}	—	2.45	3.0	V	P _O = 120 mW
Lasing wavelength	λ_p	652	660	664	nm	P _O = 120 mW
Beam divergence parallel to the junction(1)	$\theta_{//}(1)$	7.5	10.0	12.0	deg.	P _O = 120 mW
Beam divergence perpendicular to the junction	θ_{\perp}	15	17	19	deg.	P _O = 120 mW
Beam divergence parallel to the junction(2)	$\theta_{//}(2)$	7.5	—	—	deg.	P _O = 5 mW
Astigmatism	A _s	—	1	—	μm	P _O = 5 mW, NA = 0.55

Typical Characteristic Curves



Package Dimensions

As of July, 2002
Unit: mm



OPJ Code	LD/MG
JEDEC	—
JEITA	—
Mass (reference value)	0.3 g

Cautions

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1. The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.
2. This product 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.
3. Definition of items shown in this CAS is in accordance with that shown in Opto Device Databook issued by OPJ unless otherwise specified.

Sales Offices



Device Business Unit Opnext Japan, Inc.
190 Kashiwagi, Komoro-shi, Nagano 384-8511, Japan
Tel: (0267) 22-4111

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