

HL6545MG

Visible High Power Laser Diode for Recordable-DVD

ODE2036-00 (M)

Rev.0

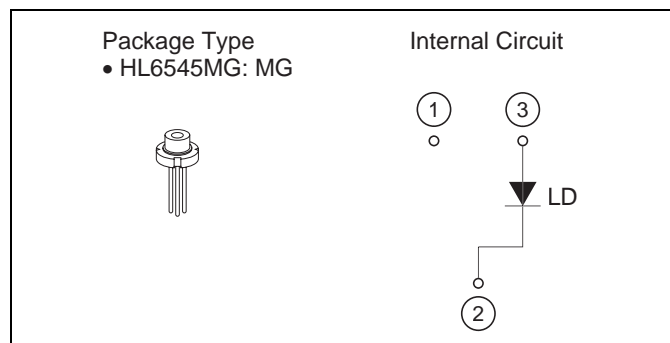
Aug. 01, 2008

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) = 175 mA Typ (P_o = 120 mW)
I_{op}(2) = 350 mA Typ
(P_o = 300 mW(pulse), pw = 30 ns, duty = 35 %)



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

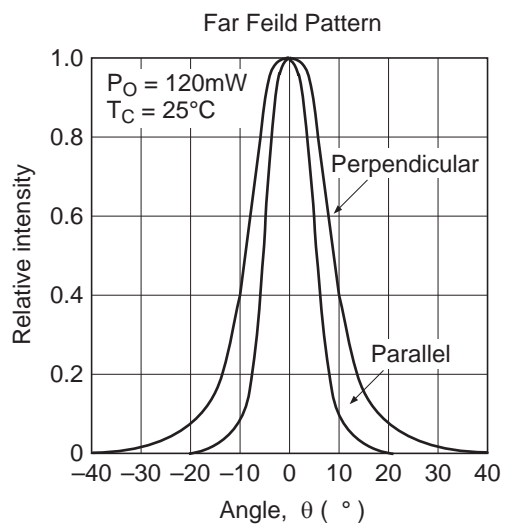
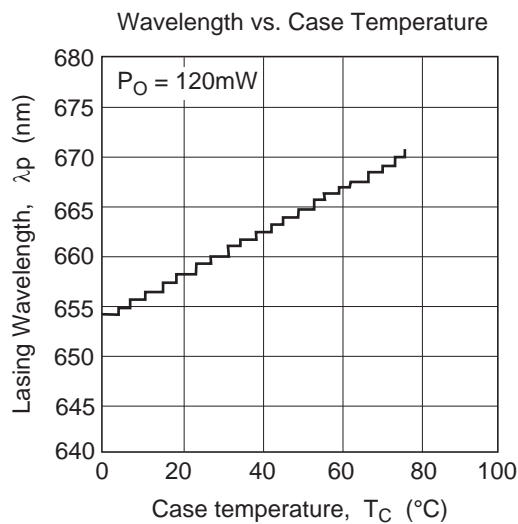
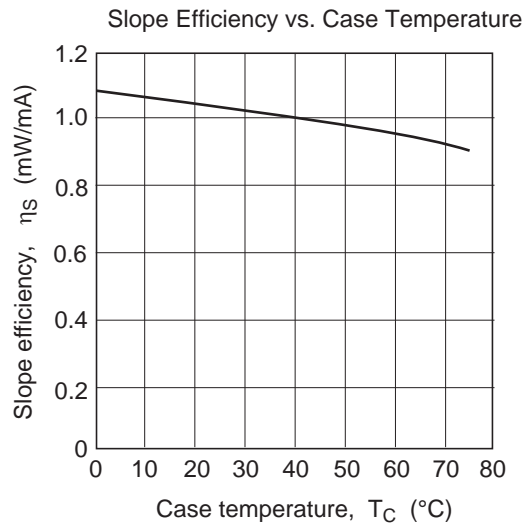
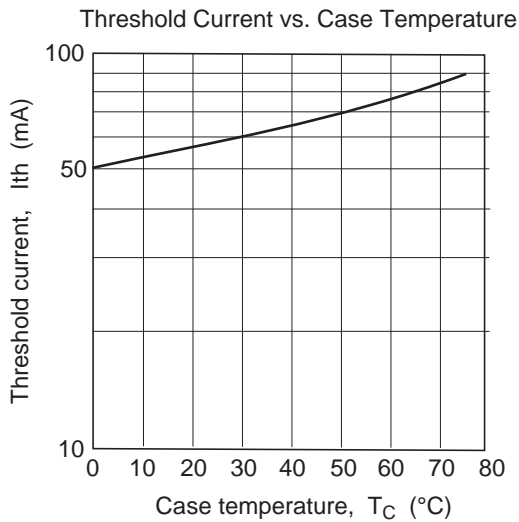
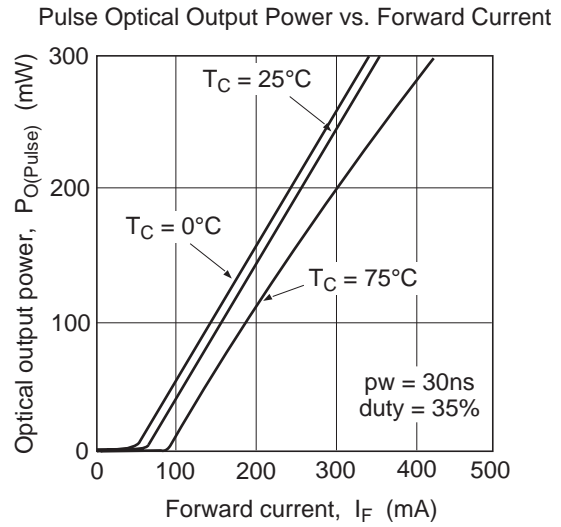
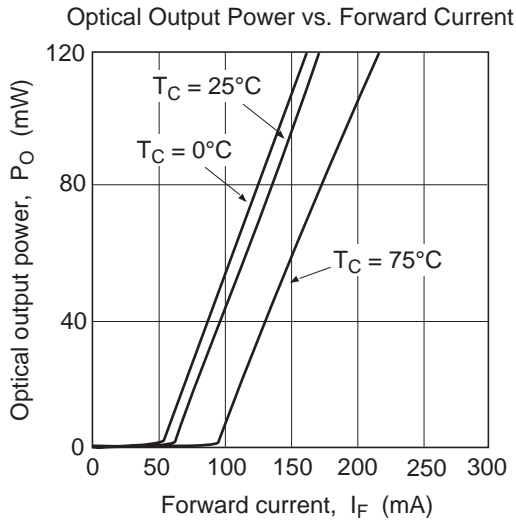
Note: Pulse condition : Pulse width = 30 ns , duty = 35 %

Optical and Electrical Characteristics

(T_C = 25°C)

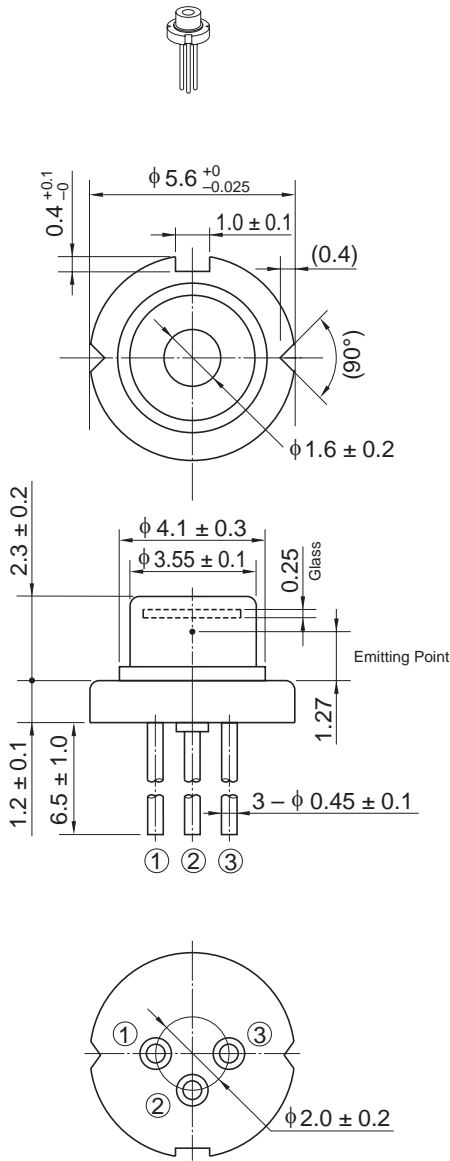
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I _{th}	—	60	75	mA	—
Operating current(1)	I _{OP} (1)	—	175	210	mA	P _O = 120 mW
Operating current(2)	I _{OP} (2)	—	350	—	mA	P _O = 300 mW(pulse) pw = 30 ns, duty = 35 %
Operating voltage	V _{OP}	—	2.5	3.0	V	P _O = 120 mW
Lasing wavelength	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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3. Definition of items shown in this CAS is in accordance with that shown in Opto Device Databook issued by OPJ unless otherwise specified.

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Opnext Japan, Inc.

Takagi Bldg., 3F, 1-3-9, Iwamoto-cho, Chiyoda-ku, Tokyo 101-0032, Japan
Tel: (03) 3865-5591

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