

HL6525MG

Visible High Power Laser Diode

ODE-208-054 (Z)

Rev.0

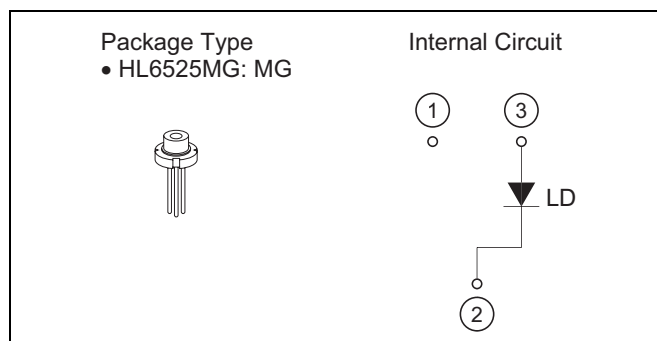
Oct. 20, 2006

Description

The HL6525MG 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, and various other types of optical equipment.

Features

- Operating temperature: 75°C Max
(140 mW(pulse), PW = 100ns, duty = 50%)
- Small package : ϕ 5.6 mm
- Visible light output : λ_p = 658 nm Typ
- Low operating current : I_{op} = 100 mA Typ
(P_o = 60 mW)



Absolute Maximum Ratings

($T_C = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Optical output power	P_O	70	mW
Pulse optical output power	$P_{O(\text{pulse})}$	140 * ¹	mW
Laser diode reverse voltage	$V_{R(LD)}$	2	V
CW Operating temperature	$T_{opr(CW)}$	-10 to +75	°C
Pulse Operating temperature	$T_{opr(\text{pulse})}$	-10 to +75	°C
Storage temperature	T_{stg}	-40 to +85	°C

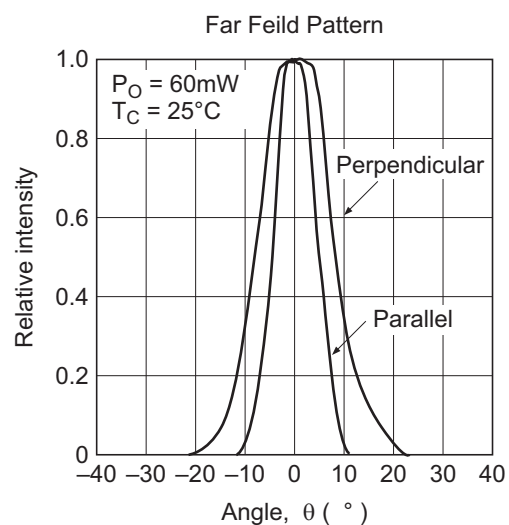
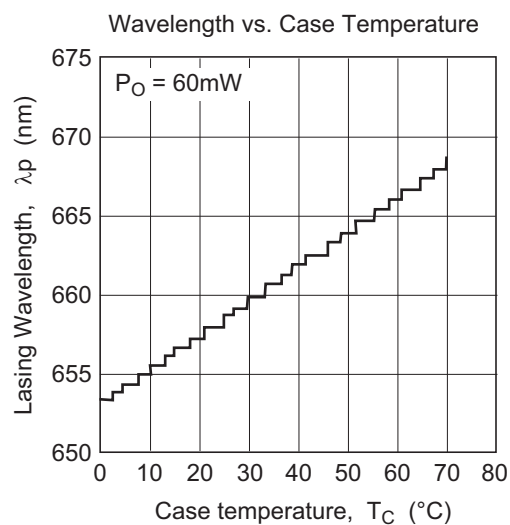
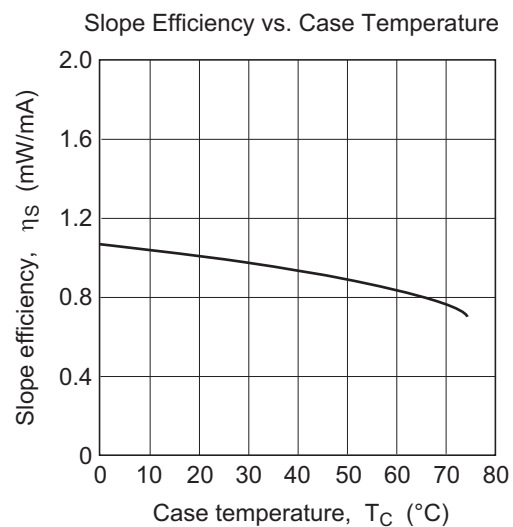
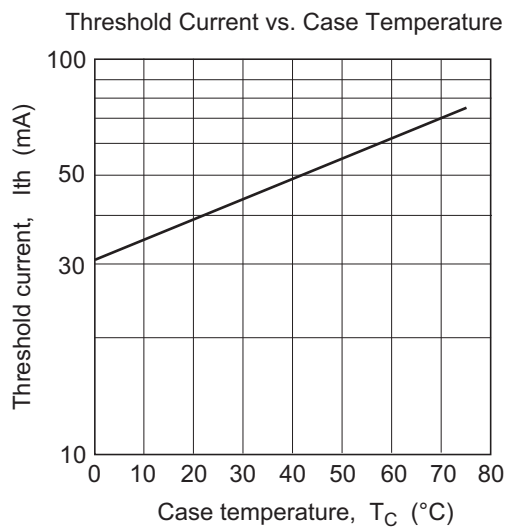
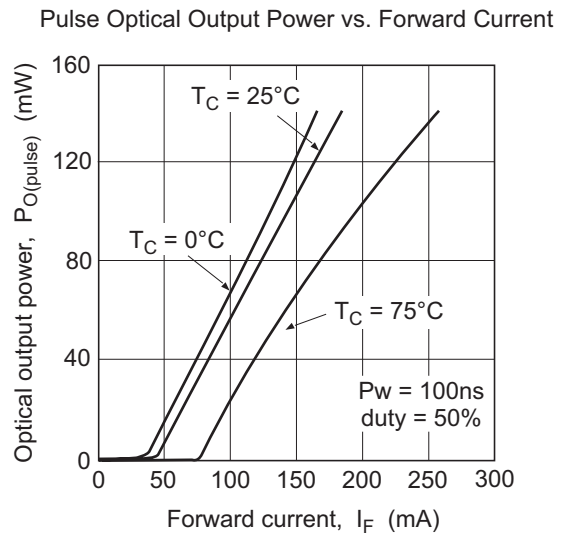
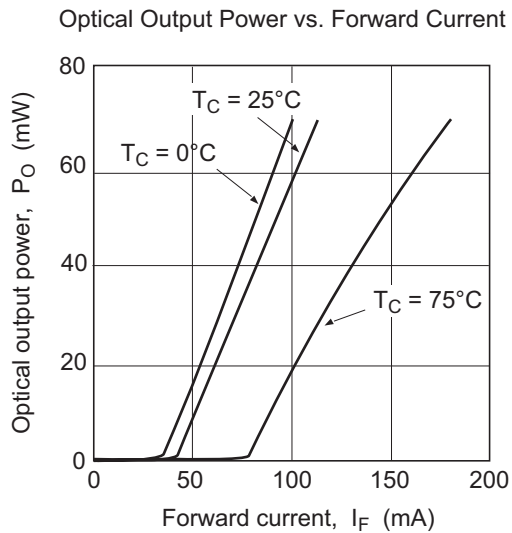
Note: 1. Pulse condition : Pulse width = 100 ns, duty = 50%

Optical and Electrical Characteristics

($T_C = 25^\circ\text{C}$)

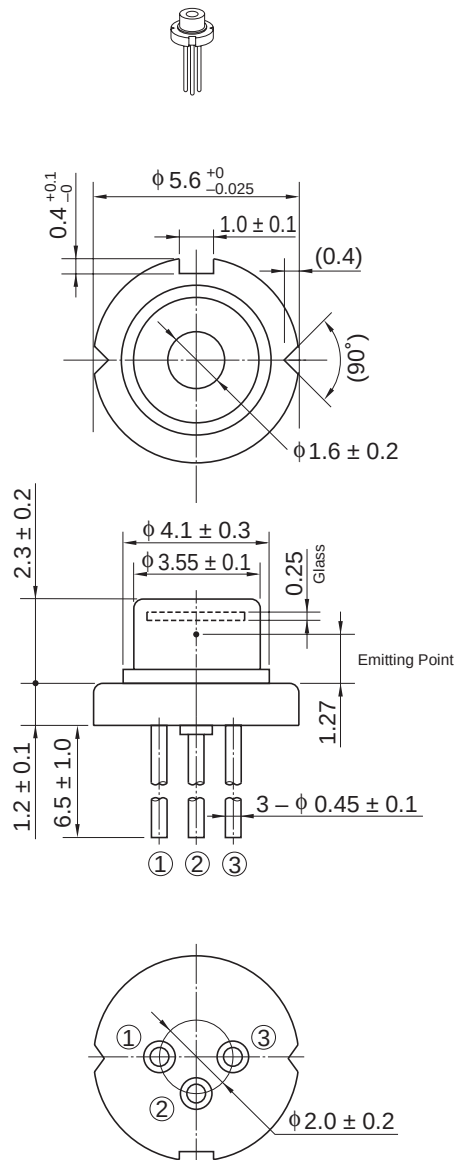
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I_{th}	—	40	55	mA	—
Operating current	I_{op}	—	100	120	mA	$P_O = 60$ mW
Operating voltage	V_{OP}	—	2.6	3.0	V	$P_O = 60$ mW
Lasing wavelength	λ_p	652	658	662	nm	$P_O = 60$ mW
Beam divergence parallel to the junction	$\theta_{//}$	7.5	10.0	12.0	°	$P_O = 60$ mW
Beam divergence perpendicular to the junction	$\theta_{\perp}$	15	17	19	°	$P_O = 60$ mW
Astigmatism	A_s	—	1	—	μm	$P_O = 3$ 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



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