HL63133DG

Low Operating Current Visible High Power Laser Diode

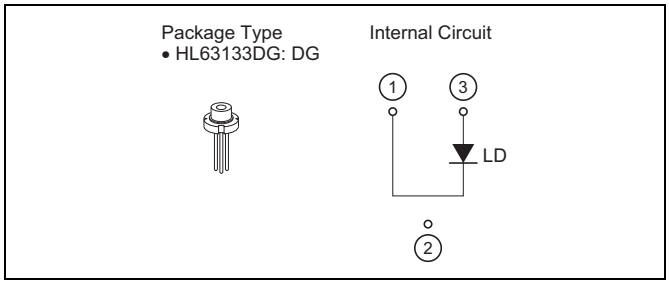
ODE2071-01 (P)
Preliminary
Rev.1
Dec. 14, 2009

Description

The HL63133DG is 0.63 µm band AlGaInP laser diodes with a multi-quantum well (MQW) structure. It is suitable as light sources for miniature laser display, laser module and optical equipment for measurement.

Features

- Visible light output: 637 nm Typ
- Optical output power: 170 mW CW
- Low operating current: 250 mA Typ
- Low operating voltage: 2.8 V Typ
- Small package: ϕ5.6mm
- TE mode oscillation



Absolute Maximum Ratings

(T_C = 25°C)

Item	Symbol	Ratings	Unit
Optical output power	P_O	170	mW
LD reverse voltage	$V_{R(LD)}$	2	V
Operating temperature	Topr	–10 to +40	°C
Storage temperature	Tstg	–40 to +85	°C

Optical and Electrical Characteristics

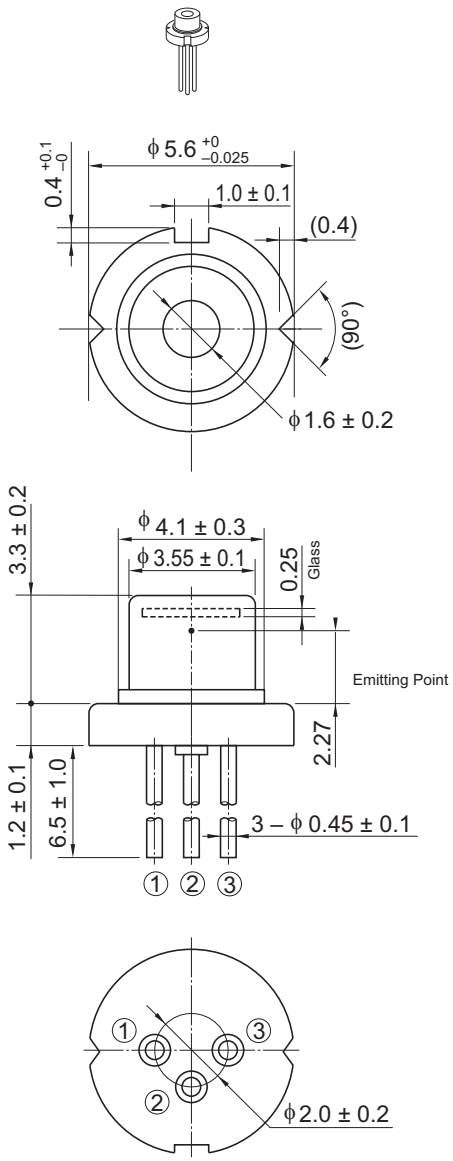
(T_C = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	—	60	90	mA	—
Operating current	I_{OP}	—	250	320	mA	P_O = 170 mW
Operating voltage	V_{OP}	—	2.8	3.2	V	P_O = 170 mW
Beam divergence parallel to the junction	θ//	5	9	13	°	P_O = 170 mW
Beam divergence perpendicular to the junction	θ⊥	13	17	23	°	P_O = 170 mW
Lasing wavelength	λp	632	637	643	nm	P_O = 170 mW

Note: This is a preliminary specification. Therefore, the specification may be changed without any notice.

Package Dimensions

Unit: mm



OPJ Code	LD/DG
JEDEC	—
JEITA	—
Mass (reference value)	0.35g

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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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