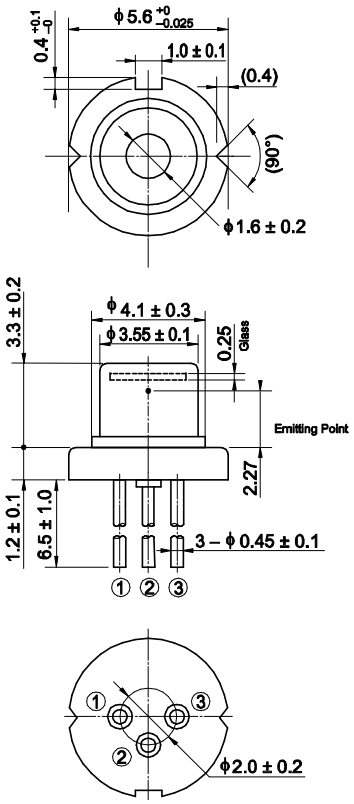
Data Sheet

HL65014DG

AlGaInP Laser Diode

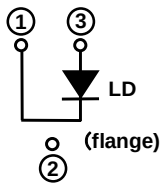
647~650nm/150mW

Outline



(unit:mm)

Internal Circuit



Features:

- Wavelength selection: 647~650nm
- High optical output power: 150mW
- Operating temperature: +40˚C
- Small package: ϕ 5.6mm
- Single transverse mode
- TE mode oscillation

Applications:

- Laser module
- Light source of optical equipments

Absolute Maximum Ratings (Tc=25°C)

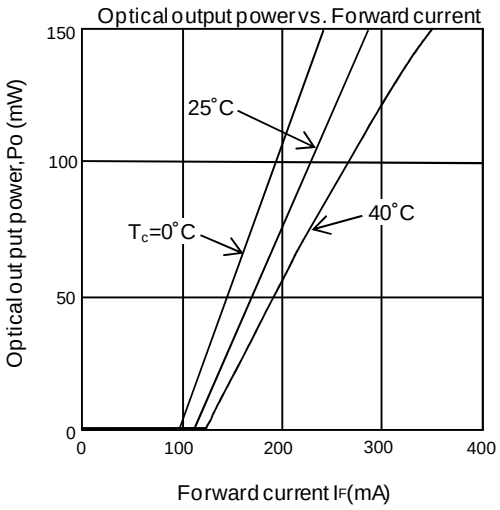
Item	Symbol	Ratings	Unit
Optical output power	Po	150	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
Operating Temperature	Topr	-10 ~ +40	°C
Storage Temperature	Tstg	-40 ~ +85	°C

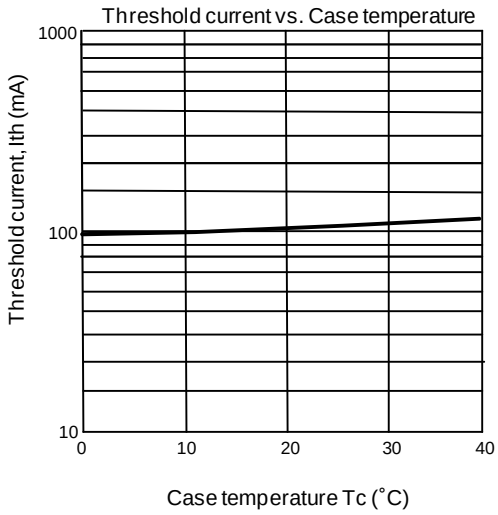
Note: Operating temperature is defined by Case temperature “Tc”. High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD’s maximum operating temperature is not exceeded during actual operation.

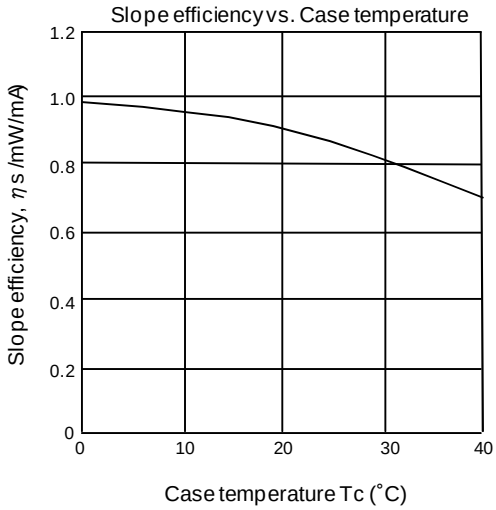
Optical and Electrical Characteristics (Tc=25°C)

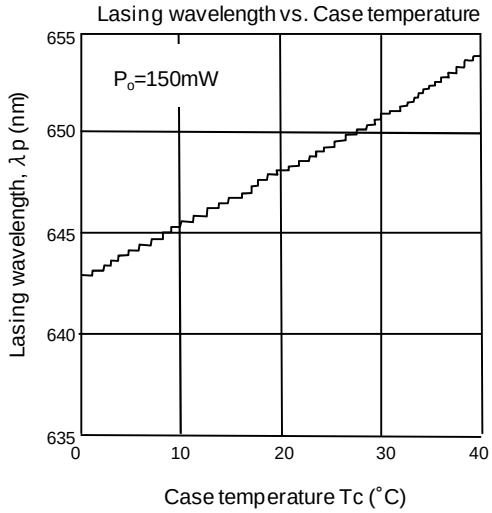
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	110	140	mA	-
Operating current	Iop	-	280	350	mA	Po=150mW
Operating voltage	Vop	-	2.6	3.0	V	Po=150mW
Beam divergence Parallel to the junction	θ//	6	9	13	°	Po=150mW
Beam divergence Perpendicular to the junction	θ⊥	13	17	22	°	Po=150mW
Lasing Wavelength	λp	647	-	650	nm	Po=150mW

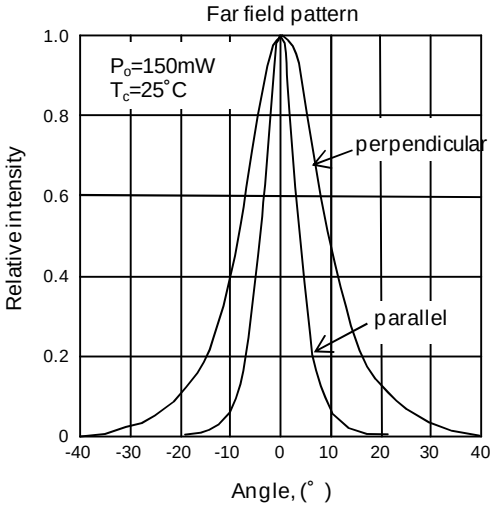
Typical Characteristic Curves











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