

HL65051DG

- 660nm/120mW -

AlGaInP Red High Power Laser Diode

Preliminary

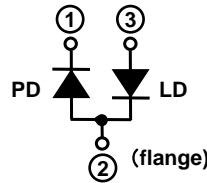
Rev.2

5. Jan. 2012

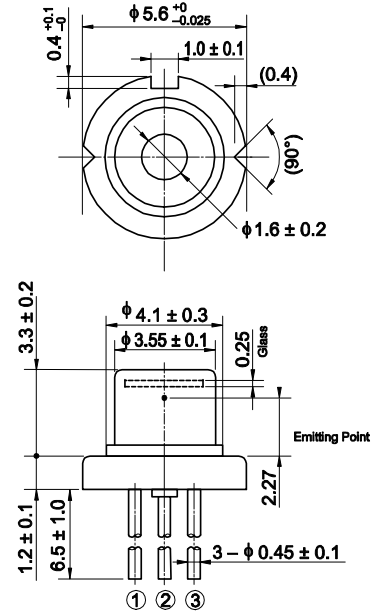
Applications

- LIDAR
- Laser module
- Sensing
- Medical

Internal circuit



Outline



Features

- Optical output power: 120mW(CW)
- Visible light output: $\lambda_p=660\text{nm}$ Typ.
- Low operating current: $I_{op}=175\text{mA}$ Typ.
- Low operating voltage: $V_{op}=2.5\text{V}$ Typ.
- Small package: 5.6mm diameters
- Single transverse mode

Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Optical output power	P_o	130	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	T_{opr}	-10 ~ +60	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +85	$^\circ\text{C}$

Optical and Electrical Characteristics($T_c=25^\circ\text{C}$)

Item	Symbol	Min.	Typ.	Max.	Unit	Test condition
Threshold current	I_{th}	-	60	75	mA	-
Operating current	I_{op}	-	175	210	mA	$P_o=120\text{mW}$
Operating voltage	V_{op}	-	2.5	3.3	V	$P_o=120\text{mW}$
Lasing Wavelength	λ_p	652	660	665	nm	$P_o=120\text{mW}$
Beam divergence Parallel to the junction	$\theta_{//}$	7	10	13	$^\circ$	$P_o=120\text{mW}$
Beam divergence Perpendicular to the junction	θ_{\perp}	15	17	21	$^\circ$	$P_o=120\text{mW}$
Monitor current	I_s	0.1	0.4	0.8	mA	$P_o=120\text{mW}$, $V_{R(PD)}=5\text{V}$

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

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