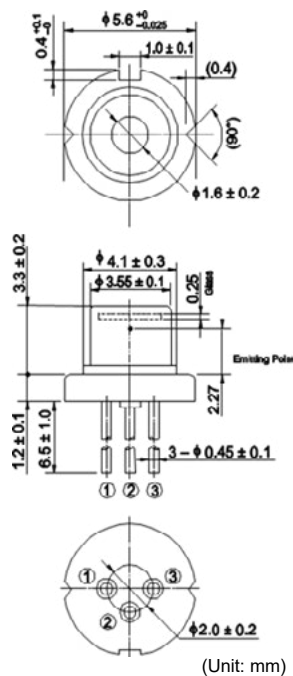


HL65241DG/242DG/243DG

660nm/110mW[CW]/220mW[Pulse]

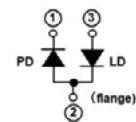
AlGaInP Laser Diode

Outline

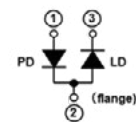


Internal Circuit

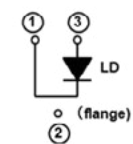
HL65241DG



HL65242DG



HL65243DG



Features

- Visible light output: 660nm Typ.
- Optical output power:
110mW (CW), 220mW (Pulse)
- Low operating current:
145mA Typ. (100mW (CW))
225mA Typ. (200mW (Pulse))
- Operating temperature: +90°C
- Single transverse mode
- TE mode oscillation

Application

- Sensor application
- Light source of optical equipment

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Data Sheet

Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|--|-----------------------|------------|------|
| Optical output power | P _o | 110 | mW |
| Pulse optical output power ^{Note1)} | P _{O(pulse)} | 220 | mW |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| PD Reverse Voltage ^{Note2)} | V _{R(PD)} | 30 | V |
| Operating Temperature | T _{opr} | -10 ~ +90 | °C |
| Storage Temperature | T _{stg} | -40 ~ +100 | °C |

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|------------------------|------|------|------|------|--|
| Threshold current | I _{th} | - | 60 | 90 | mA | - |
| Operating current | I _{op} | - | 145 | 180 | mA | P _o =100mW |
| | I _{op(pulse)} | - | 225 | - | mA | P _{o(Pulse)} =200mW, Note1 |
| Operating voltage | V _{op} | - | 2.45 | 3.0 | V | P _o =100mW |
| Beam divergence Parallel to the junction | θ | 4 | 7 | 10 | ° | P _o =100mW, FWHM |
| Beam divergence Perpendicular to the junction | θ _⊥ | 11 | 15 | 19 | ° | P _o =100mW, FWHM |
| Lasing Wavelength | λ _p | 652 | 660 | 665 | nm | P _o =100mW |
| Monitor current ^{Note2)} | I _s | 0.05 | 0.35 | 1.10 | mA | P _o =100mW, V _{R(PD)} =5V |

Note1) Pulse condition: Pulse width = 30nsec, duty = 35%

Note2) Not applicable to HL65243DG.

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Data Sheet

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Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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Data Sheet

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