

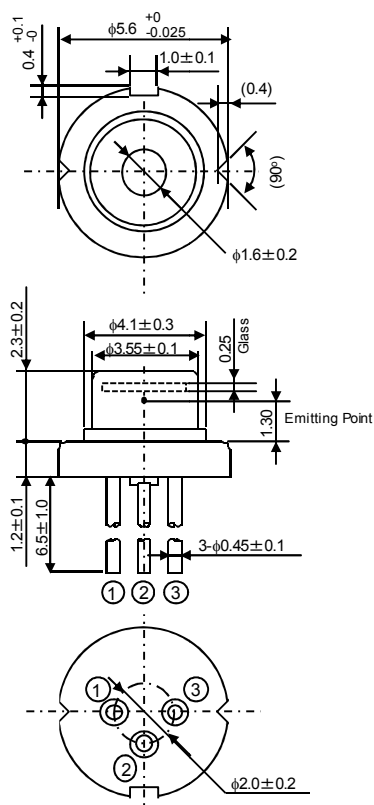
Data Sheet

HL40065MG

405nm / 600mW Violet Laser Diode

USHIO

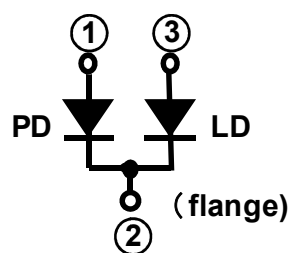
Outline



(Unit: mm)

Internal Circuit

• HL40065MG



Features

- Optical output power: 600mW (CW)
- Violet Lasing: 400~410nm
- Low operating current: 600mA Typ.
- Low operating voltage: 4.2V Typ.
- Built-in Monitor PD
- Package: $\phi 5.6$ mm
- Multiple transverse mode
- TE mode oscillation

Application

- Direct Imaging for PCB
- Industry
- Bio & Medical
- Measurement

Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------------------|-----------|------|
| Optical output power | Po | 700 | mW |
| LD Reverse Voltage | V _{R(LD)} | 5 | V |
| PD Reverse Voltage | V _{R(PD)} | 20 | V |
| Operating Temperature | Topr | 0 ~ +30 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | °C |

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|-----------------|-----|-----|-----|------|--|
| Threshold current | I _{th} | 100 | 140 | 180 | mA | - |
| Operating current | I _{op} | 450 | 600 | 700 | mA | Po=600mW |
| Operating voltage | V _{op} | 3.8 | 4.2 | 4.7 | V | Po=600mW |
| Beam divergence Parallel to the junction | θ _{//} | 5 | 13 | 25 | ° | Po=600mW, Full angle 1/e ² |
| Beam divergence Perpendicular to the junction | θ _⊥ | 30 | 42 | 50 | ° | Po=600mW, Full angle 1/e ² |
| Lasing Wavelength | λ _p | 400 | 405 | 410 | nm | Po=600mW |
| Monitor Current (*1) | I _s | 1 | 2 | 5 | mA | Po=600mW, V _{R(PD)} =5V |

*1 for only initial checking

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