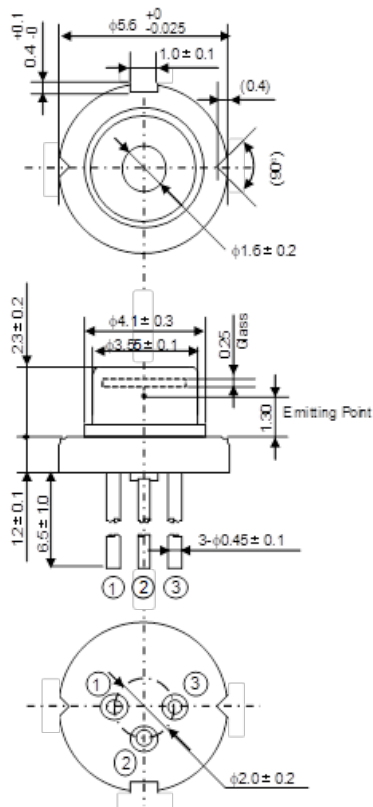




HL40113MG

405 nm / 600 mW Violet Laser Diode

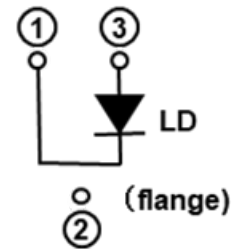
Outline



(Unit: mm)

Internal Circuit

- HL40113MG



Features

- Optical Output Power: 600 mW (CW)
- Violet Lasing: 400 ~ 410 nm
- Low Operating Current: 500 mA Typ.
- Low Operating Voltage: 4.2 V Typ.
- 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} | 70 | 110 | 180 | mA | - |
| Operating Current | I _{op} | 450 | 500 | 650 | mA | Po=600 mW |
| Operating Voltage | V _{op} | 3.8 | 4.2 | 4.6 | V | Po=600 mW |
| Beam Divergence Parallel to the Junction | θ _{//} | 5 | 13 | 25 | ° | Po=600 mW, Full angle 1/e ² |
| Beam Divergence Perpendicular to the Junction | θ _⊥ | 30 | 45 | 50 | ° | Po=600 mW, Full angle 1/e ² |
| Lasing Wavelength | λ _p | 400 | 405 | 410 | nm | Po=600 mW |

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