

Compact laser diode LDO-1064-50



Features

- ※ Wavelength: $\lambda = 1064\text{nm}$ (Type)
- ※ Output optical power: 50mW (CW)
- ※ Package: TO-18 ($\Phi 5.6\text{mm}$)

Applications

- ※ Optical Sensing
- ※ Industrial automatic control
- ※ Science analysis and experiment
- ※ Test and Measurement Equipment

Absolute Maximum Rating at $T_c=25^\circ\text{C}$

| Items | Symbols | Values | Unit |
|-----------------------------|------------|----------------|------------------|
| Optical Output Power | P_o (CW) | 50 | mW |
| Laser Diode Reverse Voltage | V_r | 2 | V |
| Photo Diode Reverse Voltage | | | |
| Operating Temperature | T_{opr} | $-10 \sim +50$ | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | $-20 \sim +80$ | $^\circ\text{C}$ |

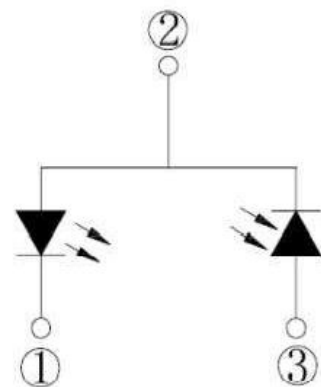
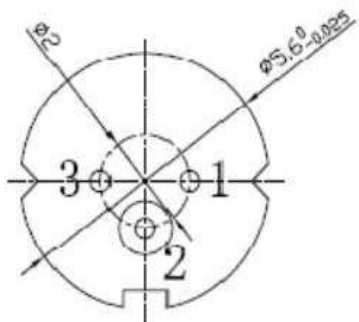
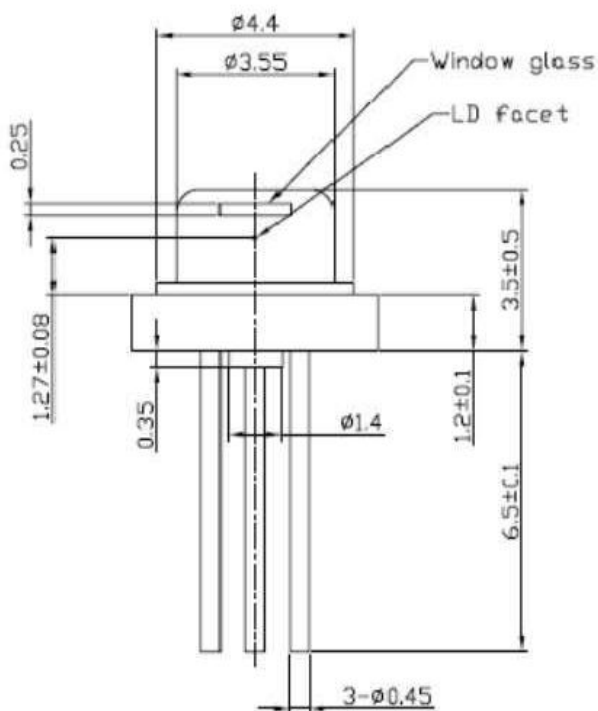
Electrical and Optical Characteristics at $T_c=25^\circ\text{C}$

| Items | Symbols | Min | Type | Max. | Unit | Condition |
|----------------------|----------------|------|------|---------|----------|-------------------|
| Optical Output Power | P_o | - | 50 | - | mW | CW |
| Threshold Current | I_{th} | - | 20 | 40 | mA | CW |
| Operating Current | I_{op} | - | 100 | 140 | mA | $P_o=50\text{mW}$ |
| Monitor Current | I_m | - | 1 | 1.8 | mA | $P_o=50\text{mW}$ |
| Slope Efficiency | η | 0.5 | 0.7 | 0.8 | mW/mA | $P_o=50\text{mW}$ |
| Operating Voltage | V_{op} | - | 1.7 | 2.2 | V | $P_o=50\text{mW}$ |
| Lasing Wavelength | λ | 1059 | 1064 | 1069 | nm | $P_o=50\text{mW}$ |
| Beam Divergence | // | - | 8 | 10 | $^\circ$ | $P_o=50\text{mW}$ |
| | \perp | - | 33 | 38 | $^\circ$ | $P_o=50\text{mW}$ |
| Beam Angle | $\Delta //$ | - | - | ± 3 | $^\circ$ | $P_o=50\text{mW}$ |
| | $\Delta \perp$ | - | - | ± 3 | $^\circ$ | $P_o=50\text{mW}$ |

- 1) Measurement condition: CW
- 2) Full angle at half maximum.

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Package and Electrical connection



N-type