

808nm 1W High Power Operation

Features

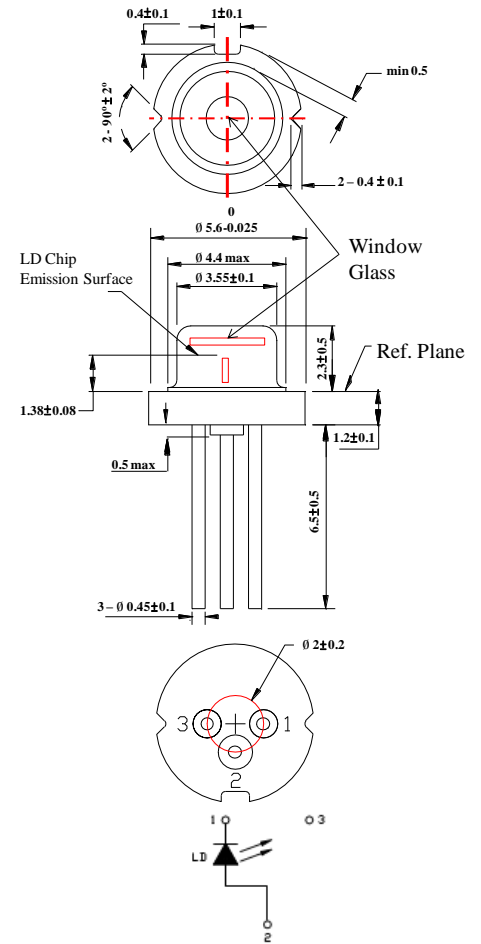
- Highly reliable
- Higher power

Applications

- Pumping of solid-state lasers and fiber lasers
- Industrial, measuring, scientific and medical systems
- Applications in the printing industry
- Defense and security

Absolute maximum ratings

| Parameter | Symbol | Condition | Rating | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power | P_O | CW | 1.2 | W |
| Reverse voltage (LD) | V_{RL} | - | 2 | V |
| Case temperature | T_C | - | -10~+50 | °C |
| Storage temperature | T_S | - | -40~+85 | °C |



Electrical and optical characteristics ($T_c=25^\circ\text{C}$)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------|------------------|------|------|------|-------|----------------|
| Peak wavelength | λ | 798 | 808 | 818 | nm | $P_o=1W$ |
| Threshold current | I_{th} | - | 320 | 450 | mA | |
| Operating current | I_{op} | - | 1200 | 1600 | mA | |
| Operating voltage | V_{op} | - | 1.9 | 2.5 | V | $P_o=0.4-1.2W$ |
| Differential efficiency | η | 0.7 | 1.1 | 1.4 | mW/mA | |
| Parallel divergence angle | $\theta_{//}$ | - | 7 | 12 | deg. | $P_o=1W$ |
| Perpendicular divergence angle | θ_{\perp} | 30 | 35 | 40 | deg. | |

* Sufficient heat dissipation is required for CW operation.

Precautions

- Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- Observing visible or invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- No laser device should be used in any application or situation where life or property is at risk in event of device failure.
- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.