

# UH Series Red Laser Diode Module

Part No: UH5-7G-650



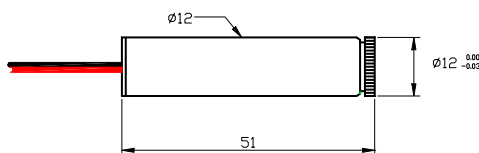
## Product Features

- High Stability and low noise
- Collimated or Adjustable focus beam
- Reverse Polarity Protection
- Custom Options Available

## Application

- Measurement
- Bioanalytical
- Automation
- Alignment

## Mechanical Drawing



### Operational Hazard-Semiconductor Laser Diode Module:

This laser module emits radiation that is visible and harmful to human eye. When in use, do not look directly into the laser emitting aperture. Direct viewing of laser diode emission at close range may cause eye damage.

**Limited Warranty:** One year. No warranty coverage for disassembly, modifications or damage due to abuse or misapplication.

## Specification

### OPTICAL

|                               |                                  |
|-------------------------------|----------------------------------|
| Wavelength                    | 650 nm                           |
| Optical Output Power          | 7 mW                             |
| Stability                     | <1%                              |
| Wavelength Drift              | 0.2nm/°C                         |
| Noise (20MHz Bandwidth)       | <0.5% RMS                        |
| Laser Class                   | Class IIIb                       |
| Laser Operation               | Continuous                       |
| Laser Structure               | Single Mode Laser                |
| Divergence at the collimation | <0.5 milliradian                 |
| Spot Size                     | Adjustable<br>Or Collimated(5mm) |
| Minimum Spot Size             | <60µm at <10" distance           |
| Bore sight Accuracy           | <2.5mm/m                         |
| Pointing Stability            | <50µrad                          |

### ELECTRICAL

|                                |                    |
|--------------------------------|--------------------|
| Operating Voltage <sup>1</sup> | 3 to 5 VDC         |
| Operating Current              | <120 mA            |
| Control Circuit                | Auto Power Control |
| Electrical Connections         | +Red, -Black       |

### MECHANICAL

|                                     |                              |
|-------------------------------------|------------------------------|
| Dimension                           | 12mm(D)x 51mm (L)            |
| Cable                               | 200mm                        |
| Operating Temperature               | -10°C to +50°C               |
| Storage Temperature                 | -40°C to +80°C               |
| Heat Sink Requirements <sup>2</sup> | Recommended for extended use |

### Notes

1. Higher operating voltage version (9 to12V) is available, the part No. will be: UH12-7G-650.
2. Heat Sink: The UH Series Red Laser Diode Module is designed to operate without heat sink. Do not restrict air circulation around the device; an additional heat sink can be used to maximize the performance and life time of the laser.

**Caution:** The case is internally connected to the circuit; damaging to the anodized surface may result in failure of the laser module.



Complies with CDRH 21CFR 1040.10