

QDLASER

QLD106G-3010

1030 nm 20psec DFB Laser Butterfly Package with SMPM connector

Preliminary

C00118-03 June 2015



1. DESCRIPTION

The QLD106G-3010 is a 1030-nm distributed feedback (DFB) laser suitable for short pulsed seed sources including picosecond pulse operation. The laser is assembled into a 7-pin butterfly package with SMPM connector.

2. FEATURES

- Single longitudinal mode operation at 1030 nm
- Short pulsed operation of <20psec
- 7pin butterfly package with SMPM connector

3. APPLICATION

- Seeder for fiber lasers
- Sensing

4. ABSOLUTE MAXIMUM RATING

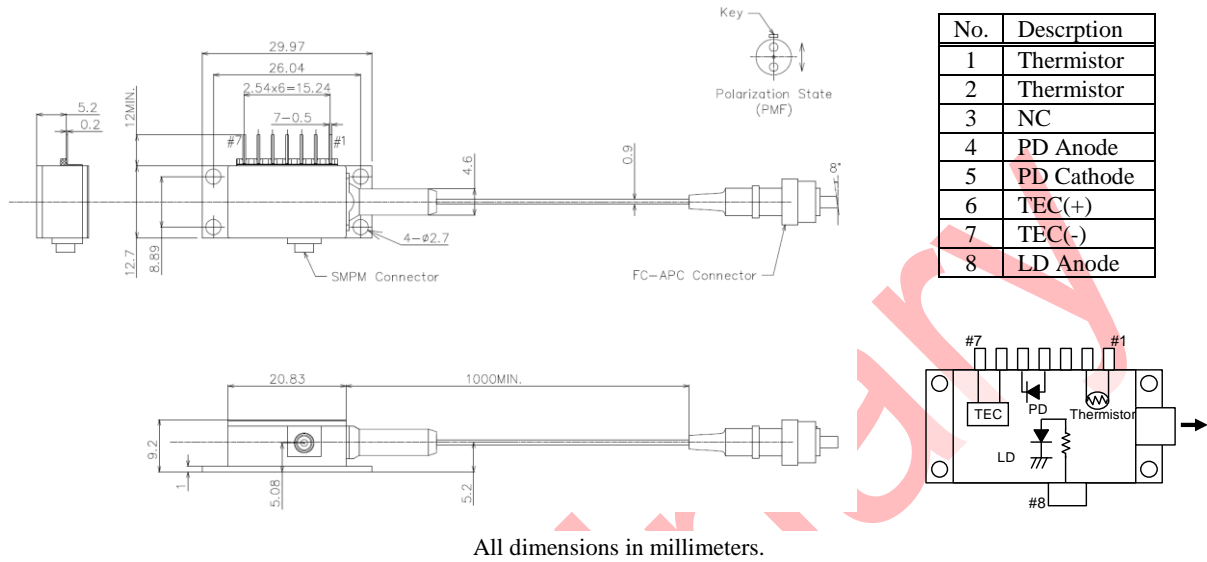
| PARAMETER | SYMBOL | RATING | UNIT |
|----------------------------------|-----------|-----------|------|
| Optical Output power (CW) | P_f | 20 | mW |
| LD Forward Current (CW) | I_f | 90 | mA |
| LD Reverse Voltage | V_{RLD} | 2 | V |
| TEC Drive Current | I_{TEC} | 2 | A |
| TEC Drive Voltage | V_{TEC} | 4.3 | V |
| Operation Temperature | T_c | 0 to 60 | °C |
| Storage Temperature | T_{stg} | -40 to 85 | °C |
| Lead Soldering Temperature (5 s) | T_{sld} | 230 | °C |

5. OPTICAL AND ELECTRICAL CHARACTERISTICS

($T_{LD} = 25^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|-------------------------------|-----------------|---|------|------|------|------------|
| Peak Wavelength | λ_p | Pulsed operation | 1027 | 1030 | 1033 | nm |
| Spectral Linewidth | $\Delta\lambda$ | @20dB, Pulsed | - | 1 | - | nm |
| Pulse Width | PW | - | - | 20 | - | psec |
| Averaged Output Power | P_{f_ave} | Pulsed/100MHz | - | 0.1 | - | mW |
| Sidemode Suppression Ratio | SMSR | Pulsed | - | 30 | - | dB |
| Polarization Extinction Ratio | PER | CW | 15 | 20 | - | dB |
| Thermistor Resistance | R_{th} | $T_{LD} = 25^{\circ}\text{C}$, B=3930K | 9.5 | 10 | 10.5 | k Ω |
| RF Input Impedance | Z_0 | - | - | 50 | - | Ω |
| Optical Isolation | - | @1030nm | 25 | 40 | - | dB |

6. OUTLINE DRAWING AND PIN CONFIGURATION



7. NOTICE

- Safety Information

This product is classified as Class 3B laser product, and complies with 21 CFR Part 1040.10. Please do not take a look at laser lighting in operations since laser devices may cause troubles to human eyes. Please do not eat, burn, break and make chemical process of the products since they contain GaAs material.

- Handling products

Semiconductor lasers are easily damaged by external stress such as excess temperature and ESD. Please pay attention to handling products, and use within range of maximum ratings. QD Laser takes no responsibility for any failure or unusual operation resulting from improper handling, or unusual physical or electrical stress.

- RoHS

This product conforms to RoHS compliance related EU Directive 2011/65/EU...