# 1625 nm Fabry-Perot Laser Diode

FPL1054T

## Description

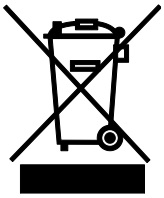
The FPL1054T 1625 nm Fabry-Perot Laser Diode is based on quantum well epitaxial layer growth and a highly reliable ridge waveguide structure. This diode features high optical output power and slope efficiency. The FPL1054T TO-56 header option is a Ø5.6 mm header, featuring an anode pin, cathode pin, and an unused pin.

## Specifications

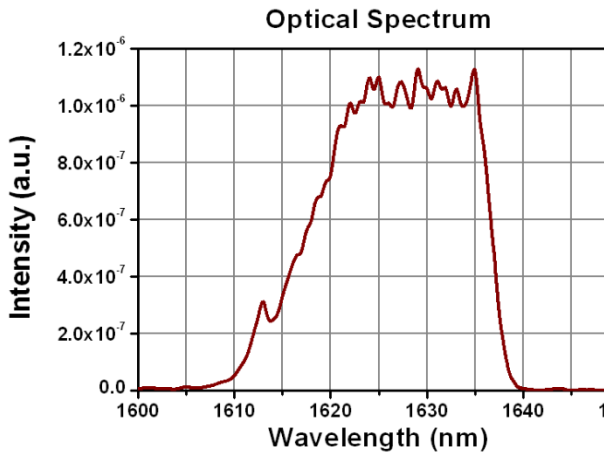
$T_{CHIP}$ = 25 °C

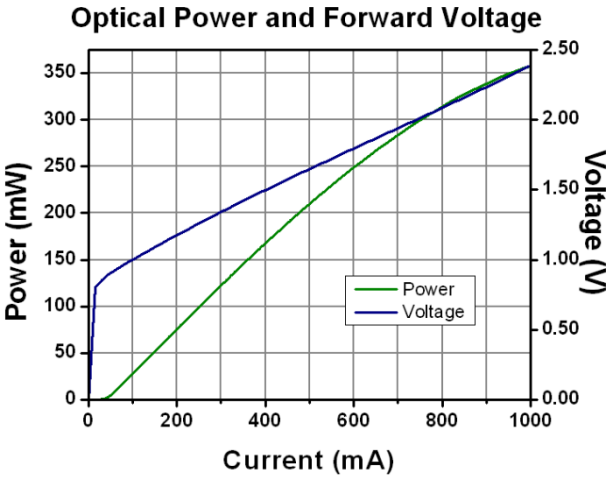
| FPL1054T | | | | |
|---|---|---|---|---|
| | **Symbol** | **Min** | **Typical** | **Max** |
| **Center Wavelength** | $\lambda_C$ | 1605 nm | 1625 nm | 1645 nm |
| **Spectral Bandwidth (RMS)** | $\Delta\lambda$ | - | 7 nm | 12 nm |
| **Output Power Pulsed @ $I_{PULSE}$** | $P_{PULSED}$ | 200 mW | 225 mW | - |
| **Output Power CW @ $I_{CW}$** | $P_{CW}$ | 110 mW | 130 mW | - |
| **Operating Current Pulsed*** | $I_{PULSE}$ | - | 750 mA | 1000 mA |
| **Operating Current CW** | $I_{CW}$ | - | 400 mA | 500 mA |
| **Threshold Current** | $I_{TH}$ | - | 45 mA | 55 mA |
| **Forward Voltage** | $V_F$ | - | 2.0 V | 3.0 V |
| **Transverse Beam Divergence Angle (FWHM) [CW at 400 mA]** | $\theta_T$ | - | 28° | 37° |
| **Lateral Beam Divergence Angle (FWHM) [CW at 400 mA]** | $\theta_L$ | - | 15° | 23° |

*QCW (Current Pulse Width = 10 µs; Duty Cycle = 1%); $T_{CHIP}$ = 25 °C



## Performance Plots




## Drawing