

1650 nm Fabry-Perot Laser Diode



FPL1059T

Description

The FPL1059T 1650 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 FPL1059T TO-56 header option is a Ø5.6 mm header, featuring an anode pin, cathode pin, and an unused pin.

Specifications

$T_{CHIP} = 25\text{ }^{\circ}\text{C}$

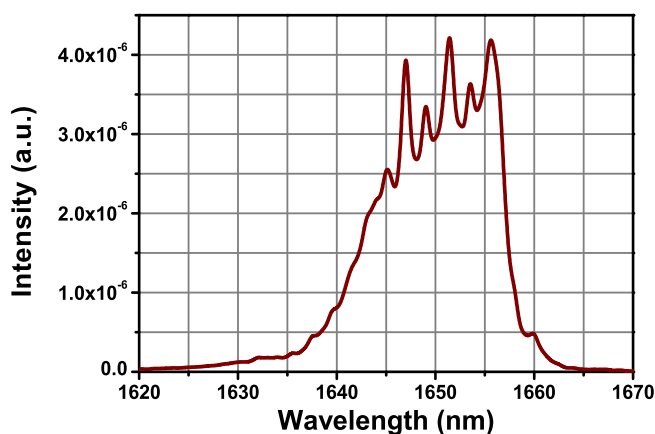
FPL1059T				
	Symbol	Min	Typical	Max
Center Wavelength	λ_C	1630 nm	1650 nm	1670 nm
Spectral Bandwidth (RMS)	$\Delta\lambda$	-	7 nm	12 nm
Output Power Pulsed @ I_{PULSE}	P_{PULSED}	225 mW	-	-
Output Power CW @ I_{CW}	P_{CW}	125 mW	-	-
Operating Current Pulsed*	I_{PULSE}	-	750 mA	1000 mA
Operating Current CW	I_{CW}	-	400 mA	500 mA
Threshold Current	I_{TH}	-	50 mA	60 mA
Forward Voltage	V_F	-	2.0 V	3.0 V
Transverse Beam Divergence Angle (FWHM) [CW at 400 mA]	θ_T	-	28°	37°
Lateral Beam Divergence Angle (FWHM) [CW at 400 mA]	θ_L	-	15°	23°

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

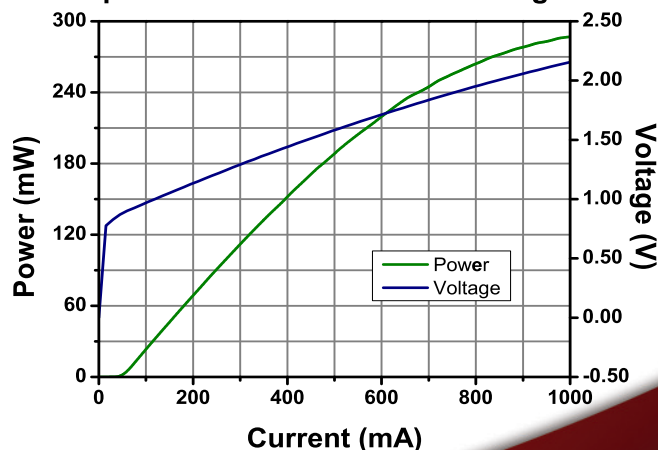


Performance Plots

Optical Spectrum

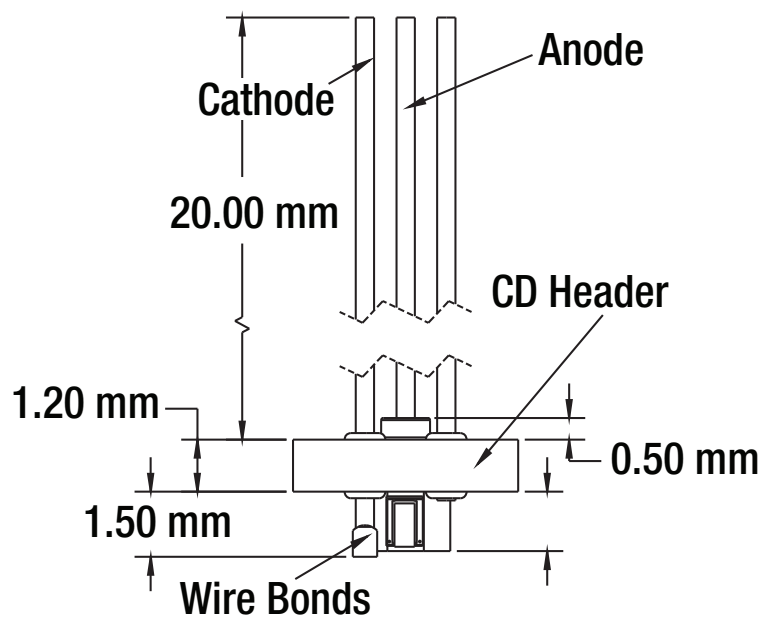


Optical Power and Forward Voltage

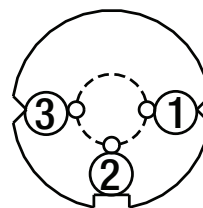


Drawing

Side View



Top View



Pin Diagram

