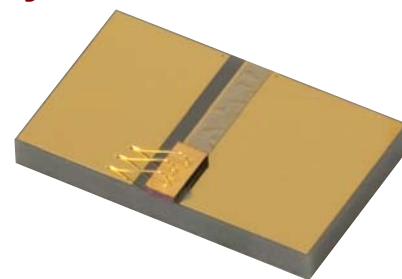


## 1650 nm Fabry-Perot Laser diode



**FPL1059C**

### Description

The FPL1059C 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 FPL1059C is a chip on submount measuring 3 mm x 5 mm and is ideal for incorporation into OEM solutions.

### Specifications

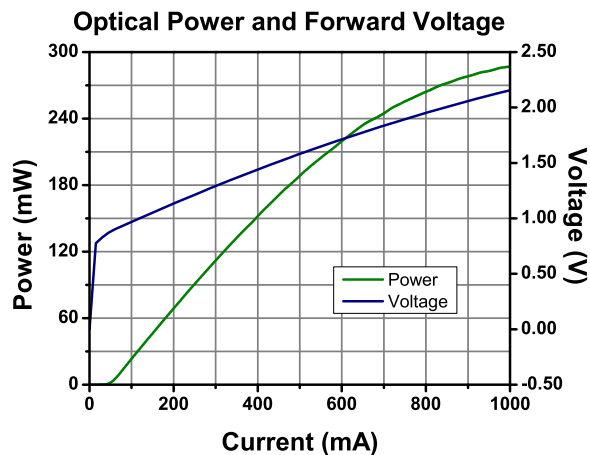
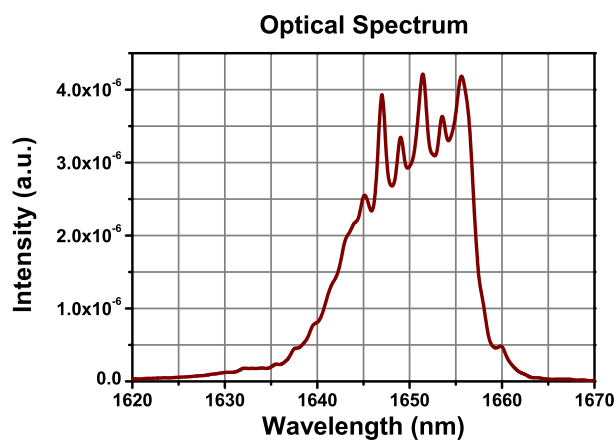
$T_{CHIP} = 25\text{ }^{\circ}\text{C}$

| FPL1059C                                               |                 |         |         |         |
|--------------------------------------------------------|-----------------|---------|---------|---------|
|                                                        | Symbol          | Min     | Typical | Max     |
| Center Wavelength                                      | $\lambda_C$     | 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] | $\theta_T$      | -       | 28°     | 37°     |
| Lateral Beam Divergence Angle (FWHM) [CW at 400 mA]    | $\theta_L$      | -       | 15°     | 23°     |

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



## Performance Plots



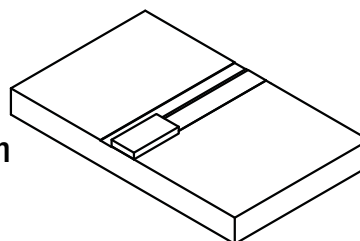
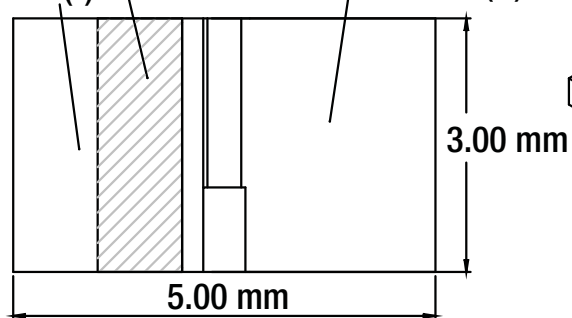
## Drawings

### Top View

Wire Bond Keep Out

Cathode (-)

Anode (+)



### Front View

