

## DFB Laser Diode 2334nm 3mW

### FNPL-3S-2334-DFB



**FNPL-3S-2334-DFB** is a CW DFB semiconductor laser diode operating at 2334nm. It is delivered in standard TO-5.6 and TO-9 packages with optional monitor diode to stabilize power output and TO-5 and butterfly packages with integrated TEC, thermistor and monitor diode. Custom mounts are available upon request.

#### Key Features

- Very high spectral purity
- Narrow Line width <3MHz
- Excellent reliability
- Variety of packaging options

#### Applications

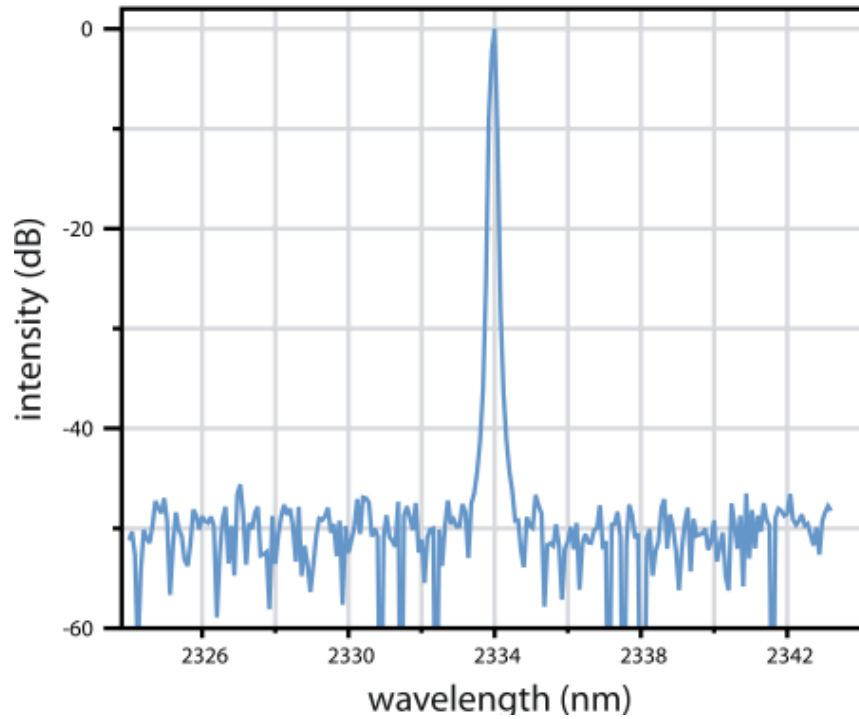
- High performance gas sensing, CO
- Precision metrology
- Atomic clocks
- Spectroscopy
- Space technology

### Optical and electrical characteristics:

Operating parameters	Symbol	Min	Typ	Max	Unit
Optical Output Power	$P_{out}$		3		mW
Lasing Wavelength	$\lambda$	2333	2334	2335	nm
Threshold Current	$I_{th}$	25	30	50	mA
Forward Current	$I_f$		100		mA
Operating Voltage	$V_{op}$		1.8		V
Beam Divergence Parallel	$\Theta_{  }$	17	20	25	deg.
Beam Divergence Perpendicular	$\Theta_{\perp}$	35	40	45	deg.
Emitting Area	WxH	3.0x1.0	4.5x1.5	5.0x2.0	$\mu\text{m}$
Slope Efficiency	$dP_o/dI_{op}$	0.1	0.15	0.2	mW/mA
Temp. Tuning Coefficient	$C_T$	0.15	0.2	0.22	nm/K
Current Tuning Coefficient	$C_I$	0.01	0.02	0.03	nm/mA
Operating Temperature	$T_C$	-20		+50	$^{\circ}\text{C}$
Storage Temperature	$T_S$	-40		+80	$^{\circ}\text{C}$

**TYPICAL PERFORMANCE**

Room Temperature CW Spectrum at 2334nm



Mode-hop Free Wavelength Current Tuning at Different Temperatures

