

FPL 1009: 1550nm Fabry-Perot Laser

7.1.2.SP.1009 Rev E

Description

The FPL 1009 is a high power Fabry-Perot Laser diode (FPL) is based on a state of the art quantum well epitaxial layer growth and reliable ridge waveguide structure.

It is housed in a standard 14-pin butterfly package with integrated thermoelectric cooler and thermistor. Packaging options include isolator and choice of single mode fiber or polarization maintaining output fiber tails (see + Packaging drawing for options).



Features

Applications

- ✓ Optical Source for free space optical wireless systems
- ✓ Laser transmitter for eye-safe remote sensing applications

- High optical output power
- 14 pin Butterfly package
- Highly reliable InP ridge waveguide

Specifications

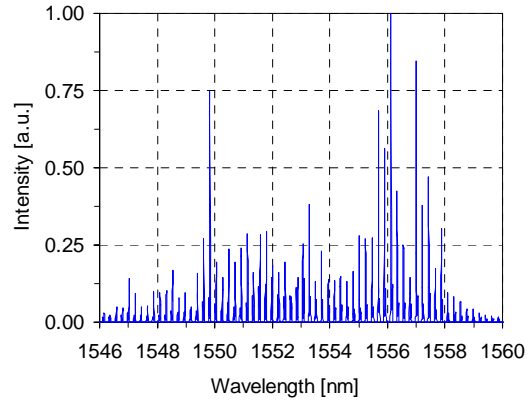
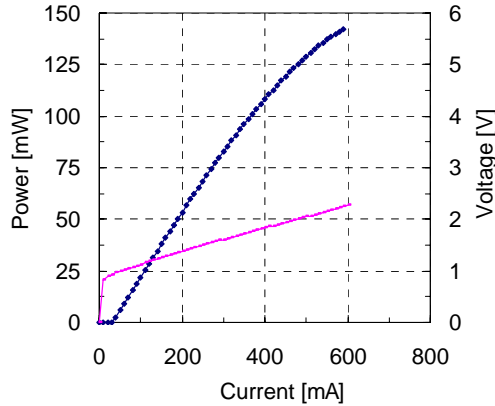
CW; T (Chip) = 25°C, T (Case) = 0 - 70°C

Parameter		Min	Typ	Max	
Operating Current	I_{OP}		400	500	mA
Center Wavelength	λ_C	1530	1550	1570	nm
Spectral Bandwidth (rms)	$\Delta\lambda$		16	20	nm
Output Power @ I_{op}	P_{OUT}	80	95		mW
Threshold Current	I_{TH}		38	45	mA
Slope Efficiency	$\Delta P/\Delta I$	0.2	0.3		W/A
Forward Voltage	V_F		1.4	1.6	V
TEC Operation (typ / max @ $T_{CASE} = 25^\circ C / 70^\circ C$)					
- TEC Current	I_{TEC}		0.25	1.5	A
- TEC Voltage	V_{TEC}		0.35	3.5	V
- Thermistor Resistance	R_{TH}		10K		Ω
SPECIFICATIONS SUBJECTED TO CHANGE WITHOUT NOTICE					

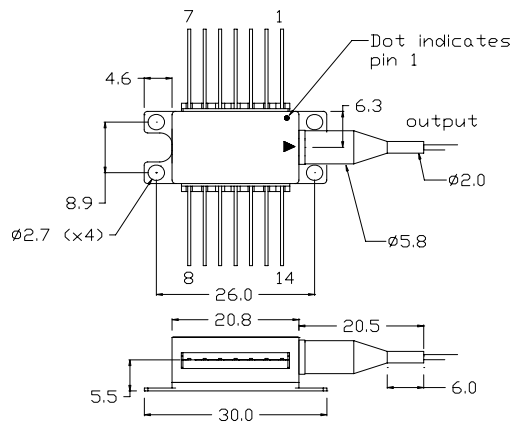
THE PICTURE IS A REPRESENTATION. THE ACTUAL PART MAY VARY FROM THE ONE SHOWN.

FPL 1009

Performance



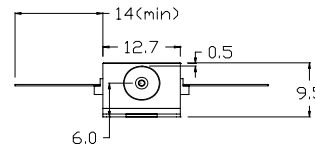
Packaging



PIN IDENTIFICATION

- | | |
|---------------|-----------------|
| 1. TEC + | 14. TEC - |
| 2. Thermistor | 13. Case |
| 3. NC | 12. NC |
| 4. NC | 11. Dev Cathode |
| 5. Thermistor | 10. Dev Anode |
| 6. NC | 9. NC |
| 7. NC | 8. NC |

Recommended mounting torque is 10-20oz.in (0.07-0.14N.m).



all dimensions in mm

Ordering Information

FPL 1009 - X - 0 - X - X - X - X					
X	0	X	X	X	Numeric
Isolator	Photodiode	Fiber jacket configuration*	Fiber Type	Connector type	Grade Level
0 = none	0 = N/A	U = SMF-28, loose tube	S = SMF	B = Bare Fiber	0 / blank = Std
2 = output		T = SMF-28, tight jacket	P = PMF	A = FC/APC	1 = XL
		V = PMF 1550 nm, loose tube		O = Other	2 = Reserved
		C = reserved			

* see all of the fibertail options in the Covega catalog

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