1940 nm Fabry-Perot Laser Butterfly Package

FPL1940S

Description

The FPL1940 series laser is a high power Fabry-Perot Laser diode (FPL) based on state-of-the-art, quantum-well epitaxial layer growth and reliable ridge waveguide structure.

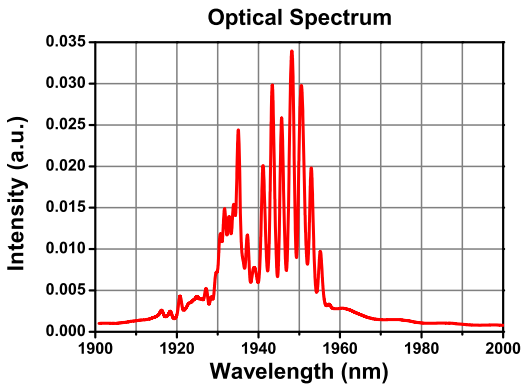
The FPL1940S is housed in a standard, 14-pin butterfly package with an integrated thermoelectric cooler and thermistor. The output fiber is newly developed 2000 nm single-mode fiber with a larger optical core and significantly lower bend-loss sensitivity compared to SMF-28 fiber. SMF-28 is available as an option for applications requiring compatibility.

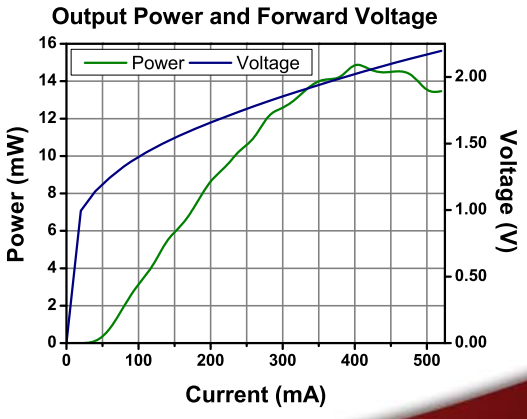
Specifications

CW; T_{CHIP} = 25 °C, T_{CASE} = 0 – 70 °C

FPL1940S				
	Symbol	**Min**	**Typical**	**Max**
Center Wavelength	λ_C	1920 nm	1940 nm	1960 nm
Operating Current	I_{OP}	-	400 mA	500 mA
Optical Power @ I_{OP}	P_{OUT}	10 mW	15 mW	-
Spectral Bandwidth (rms)	$\Delta\lambda$	-	15 nm	-
Threshold Current	I_{TH}	-	55 mA	80 mA
Slope Efficiency	$\Delta P/\Delta I$	-	0.04 W/A	-
Forward Voltage @ I_{OP}	V_F	-	2.0 V	2.5 V
TEC Operation (Typical / Max @ T_{CASE} = 25 °C / 70 °C)				
- TEC Current	I_{TEC}	-	0.25 A	1.5 A
- TEC Voltage	V_{TEC}	-	0.35 V	3.5 V
- Thermistor Resistance	R_{TH}	-	10 kΩ	-

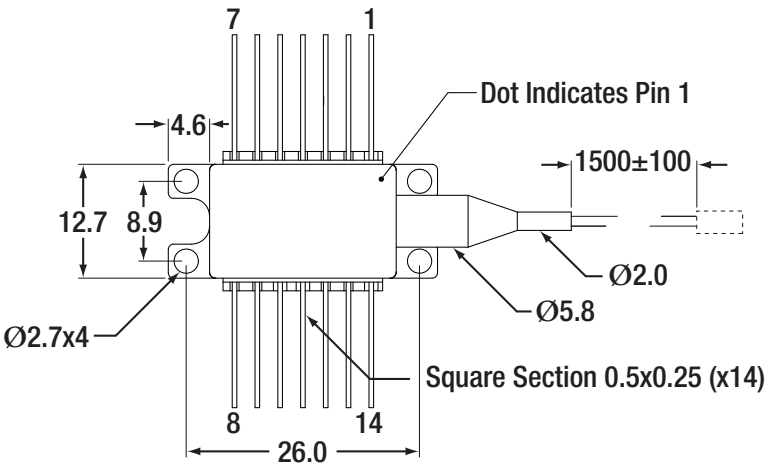
Performance Plots





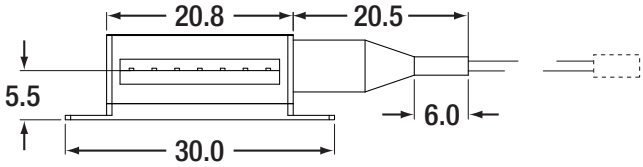
Drawings

Butterfly Top View

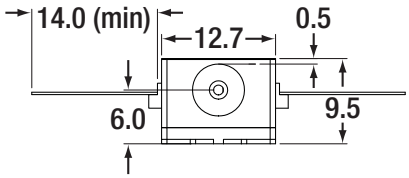


PIN IDENTIFICATION	
1. TEC +	14. TEC –
2. Thermistor	13. Case
3. NC	12. NC
4. NC	11. Dev Cathode
5. Thermistor	10. Dev Anode
6. NC	9. NC
7. NC	8. NC

Butterfly Side View



Butterfly Front View



All Dimensions in mm