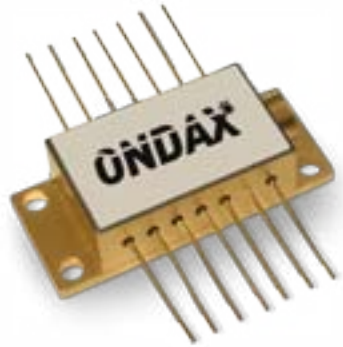


785nm/808nm/830nm/976nm/1064nm, 800mW Free-Space Collimated Butterfly Lasers



High Power, Narrow Linewidth
Free-Space Collimated Output

Ondax's 785nm and 1064nm Raman Free-Space Butterfly Lasers are wavelength-stabilized, high-power lasers with free-space, collimated beam output, designed specifically for Raman applications. Offering standard output powers of 800mW, the narrowed linewidth, low power consumption, and broad stabilized temperature operating characteristics deliver affordable, portable instrument-quality performance.

All SureLock™ Series lasers are stabilized using the Ondax PowerLocker® Volume Holographic Grating (VHG), ensuring precise, ultra-stable center wavelengths, low temperature dependence, and consistent optical performance over the locked region.

Features:

- Compact 14-pin butterfly footprint
- Narrow spectral linewidth - 0.15nm
- Wavelength stability across operating range 0.01nm/°C
- Free-space, collimated beam output
- Higher powers available by request
- NoiseBlock™ narrow-band ASE suppression filters and beamsplitters available in matching wavelengths to further reduce linewidth and ASE noise

Applications:

- Raman Spectroscopy
- Metrology
- Bio-instrumentation
- Sensing
- Analytical Instrumentation

Specifications:

Specification Summary

Parameter	Symbol	Min	Typ	Max	Unit
Output Power	P_o			800	mW
Center Wavelength (vacuum)	L_p	784.5	785	785.5	nm
		807.5	808	808.5	
		829.5	830	830.5	
		977.5	976	976.5	
		1063.75	1064.25	1064.75	
Linewidth	$\Delta\lambda$	0.06	0.10	0.20	nm
Side Mode Suppression Ratio	SMSR			-40	dB
Central Stabilized Temperature ¹	T_c	20		40	°C
Stabilized Temperature Range ¹	T_r	14			°C

Operating Specifications

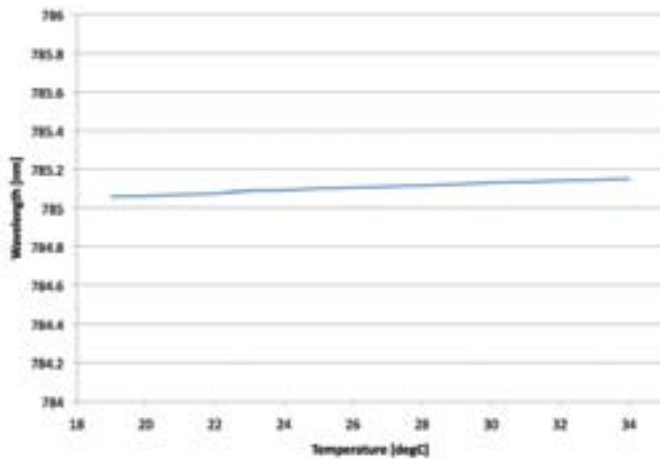
Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current	I_{th}	785-976nm 1064nm	325 250		mA
Operating Current	I_{op}	785-976nm 1064nm	1100 1200	1500 1600	mA
Operating Voltage	V_{op}	785-976nm 1064nm	1.9 2.1	2.2 2.5	V
TEC Current				2	A
TEC Voltage				4	V
Beam Size at Exit (FWHM)			0.2 (V) x 1.0 (H)		mm
Beam Divergence	Q_v		5 x 25		mrad
Emitter Size			1 x 100		μm
Operating Temperature ²	T_{op}	0	25	50	°C
Storage Temperature ²	T_s	-20		80	°C

¹ Temperature set point is internal TEC set point. R-T thermistor data is available to determine actual thermistor setting. All specifications are at rated power with a case temperature of 25°C unless otherwise noted.

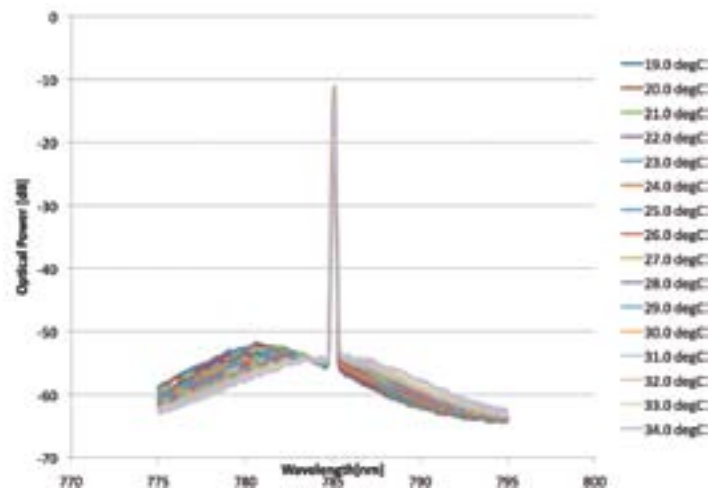
² Non-condensing

785nm-1064nm, 800mW Collimated Butterfly Lasers

Wavelength Stability (785nm Example)

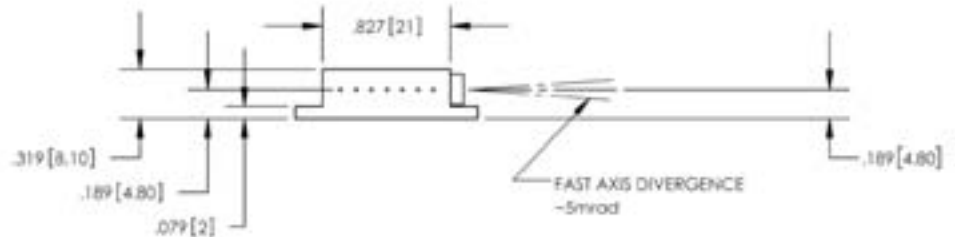
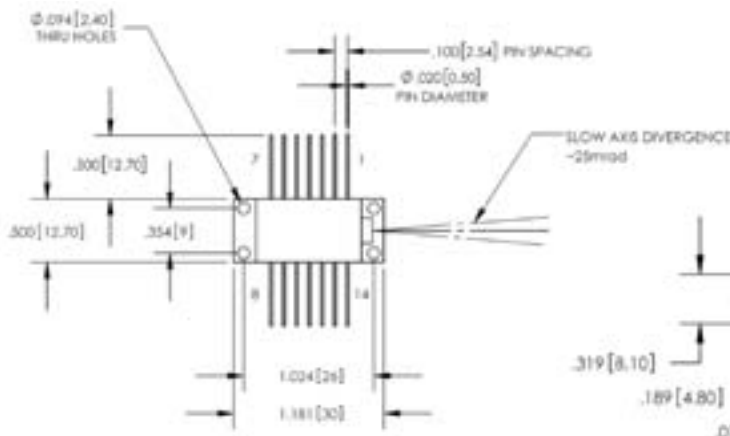


Optical Spectrum (785nm Example)



Top View

Side View



Pinout

Pin	Description	Pin	Description
1	TEC +	8	Not Connected
2	Thermistor	9	Laser Cathode
3	PD Anode	10	Laser Anode
4	PD Cathode	11	Laser Cathode
5	Thermistor ¹	12	Not Connected
6	Not Connected	13	Case Ground
7	Not Connected	14	TEC

1. For a complete Thermistor resistance-temperature table, contact Ondax

Model Numbers

- BFFS-785-PLR800
- BFFS-808-PLR800
- BFFS-830-PLR800
- BFFS-976-PLR800
- BFFS-1064-PLR800



850 E. Duarte Rd. Monrovia, CA 91016
 626-357-9600 (Tel)
 626-513-7494 (Sales Fax)

For more information about Ondax products and the name of a local representative or distributor, visit www.ondax.com, email sales@ondax.com, or call (626) 357-9600. Specifications subject to change without notice. Each purchased laser is provided with test data. Please refer to this data before using the laser.