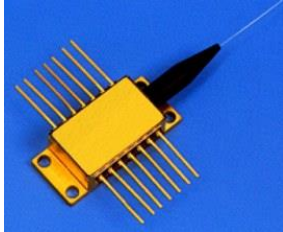


LASER DIODE FLPD-2332-03-DFB-BTF



The FLPD-2332-03-DFB-BTF laser diode is a cost effective, highly coherent laser source. The DFB laser diode chip is packaged in an industry standard hermetically sealed 14 pin butterfly package with TEC, thermistor and PD.

Features

- Narrow Linewidth < 2MHz
- Excellent Wavelength Control and Stability
- Optical Isolator
- Mode-Hop Free Tuning
- Tuning Range >2nm
- Customer Specific Wavelengths Available

Applications

- Tunable Diode Laser Absorption Spectroscopy
- CO Monitoring

Absolute Maximum Ratings

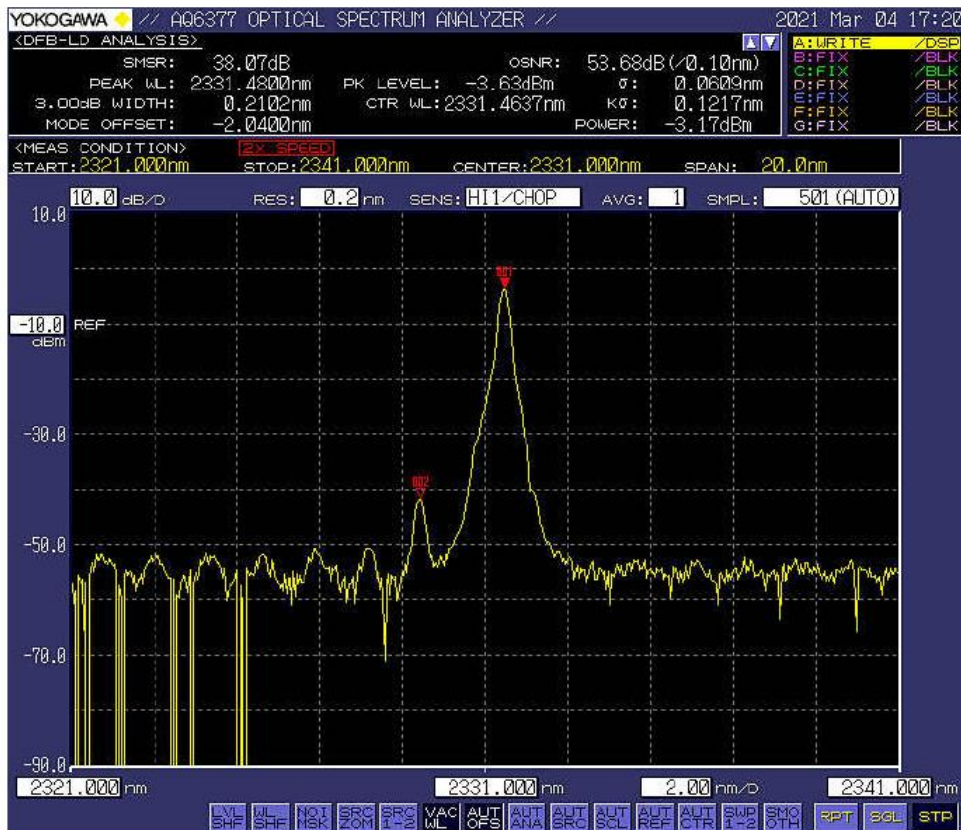
Case Temperature	-5°C - +70°C
Operating Temperature	+10°C - +40°C
Forward Current	120mA
Forward Voltage	2.0V
Reverse Voltage (LD)	2.0V
Reverse Voltage (PD)	20V

Electrical/Optical Characteristics

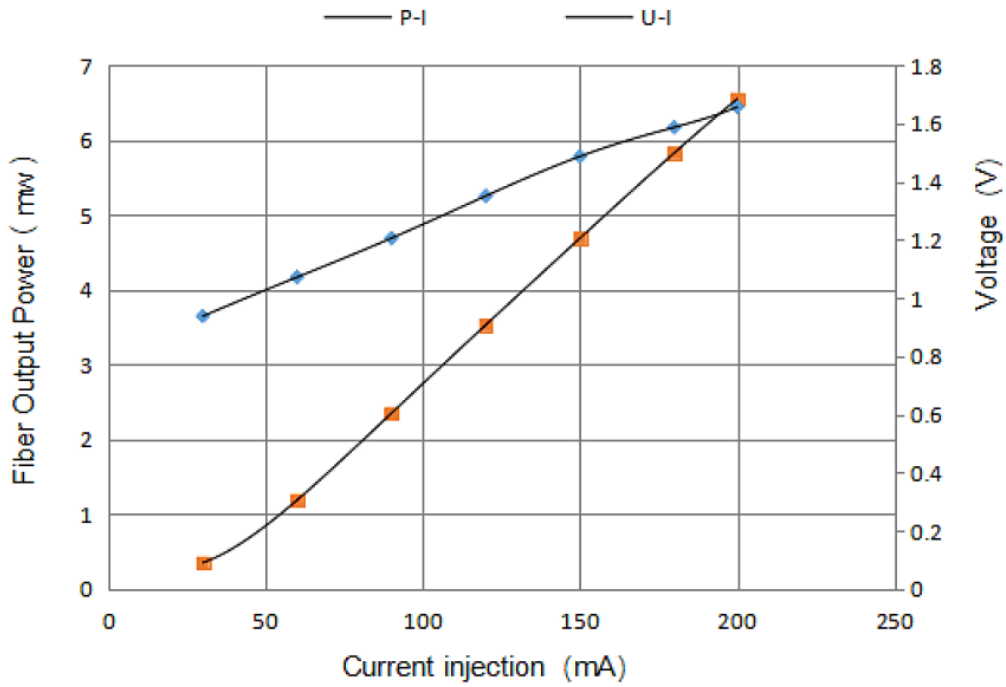
Parameter	Symbol	Units	Min	Typ	Max	Test Conditions
Emission Wavelength	λ_R	nm	2331	2332	2333	T=25°C
Fiber Output Power	P _{OP}	mW	2.5			T=25°C
Side Mode Suppression Ratio	SMSR	dB	30	40		T=25°C
Optical Isolation	OI	dB	30			
Threshold Current	I _{TH}	mA		20	30	
Laser Current	I _{OP}	mA		80	120	
Laser Voltage	U _{OP}	V		1.3	2.0	
Quantum Efficiency	η	mW/mA	0.08	0.12		
Current Tuning Coefficient	$\Delta\lambda/\Delta I$	nm/mA		0.015		
Temperature Tuning Coefficient	$\Delta\lambda/\Delta T$	nm/K		0.12		
TEC Current		A			1.2	Appropriate heat sink required
NTC Thermistor Resistance		K Ω	9.5	10	10.5	T=25°C
NTC Temperature Coefficient		1/°C			-4.4	
Fiber + Connector						SMF-28E / PM Fiber* + FC/APC

*Available with SM and PM fiber. Please specify.

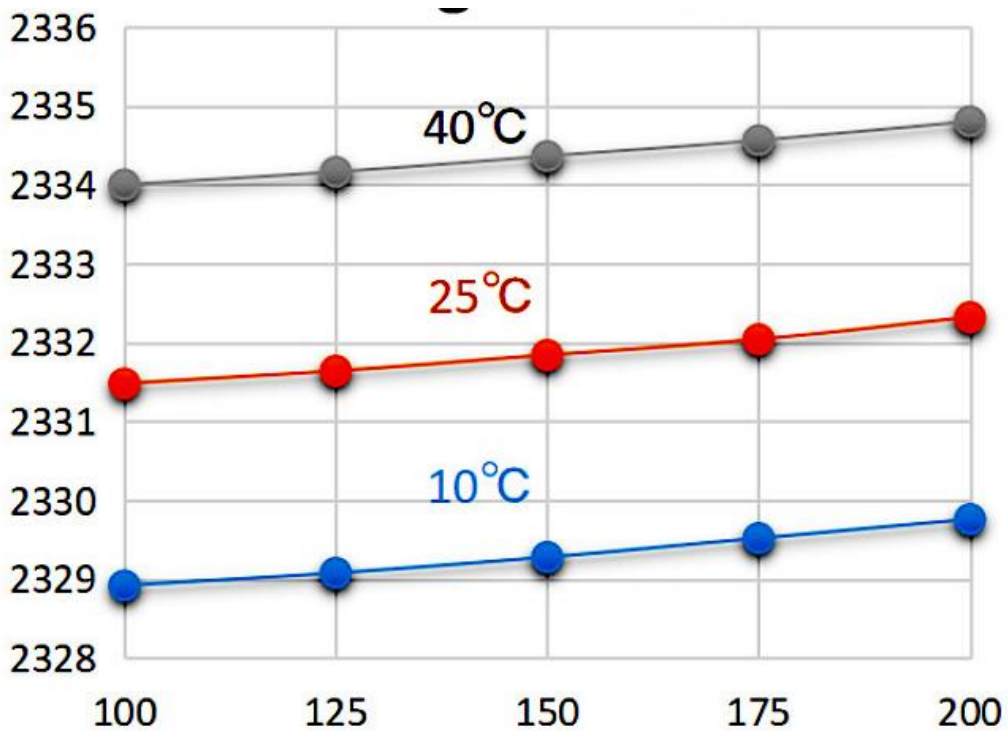
Spectrum



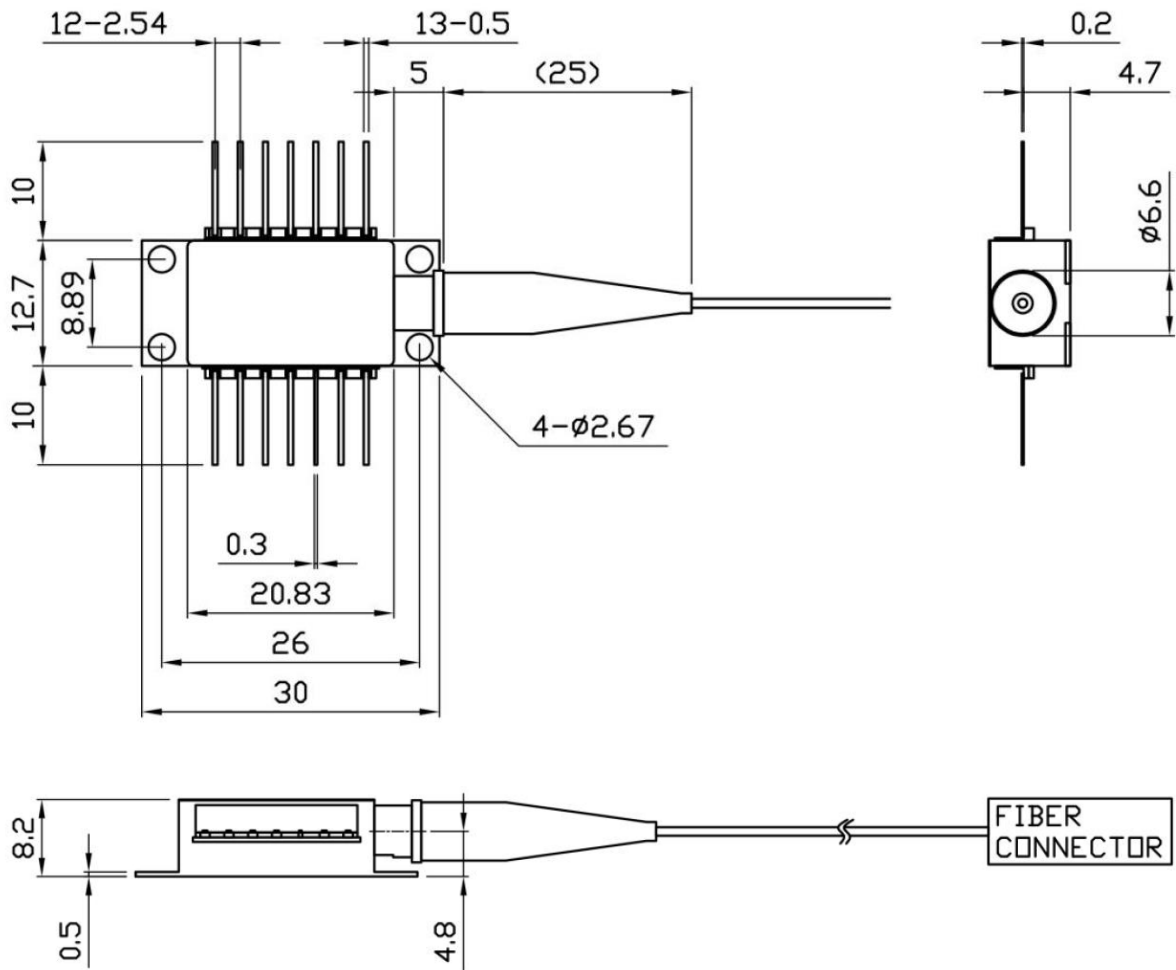
P-I & U-I Curve



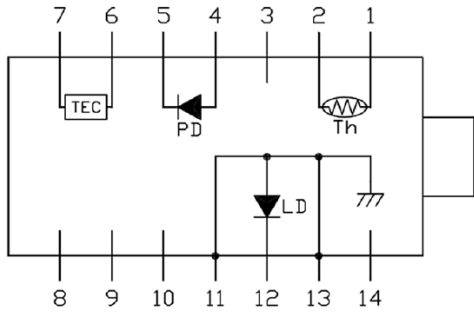
Tuning Characteristics



Package Size and Pin Definition

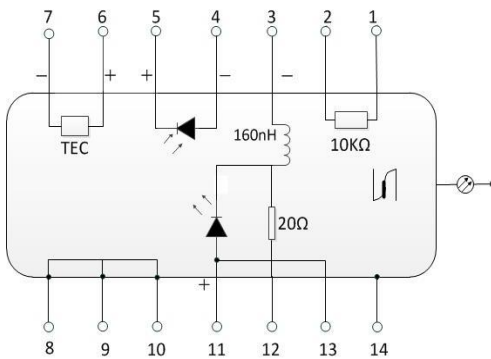


Pin-Out



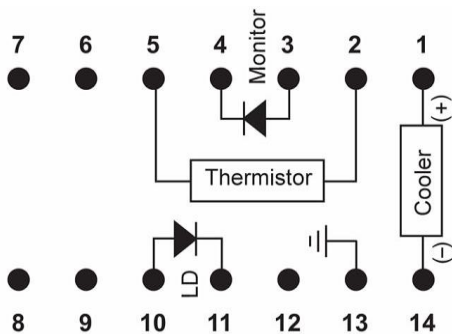
PIN#	Function	PIN#	Function
1	Thermistor	8	NC
2	Thermistor	9	NC
3	NC	10	NC
4	PD Monitor Anode (-)	11	Laser Anode (+), Case Ground
5	PD Monitor Cathode (+)	12	RF Laser Input Cathode (-)
6	TEC (+)	13	Laser Anode (+), Case Ground
7	TEC (-)	14	NC

Pin-Out (Option 2)



1	Thermistor	8	Case Ground
2	Thermistor	9	Case Ground
3	Laser DC Bias (Cathode) (-)	10	Case Ground
4	PD Monitor Anode (-)	11	Laser Anode (+)
5	PD Monitor Cathode (+)	12	RF Laser Input Cathode (-)
6	TEC (+)	13	Laser Anode (+)
7	TEC (-)	14	Case Ground

Pin-Out (Option 3)



1	TEC (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	Laser Anode (+)
4	PD Monitor Cathode (+)	11	Laser Cathode (-)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	TEC (-)