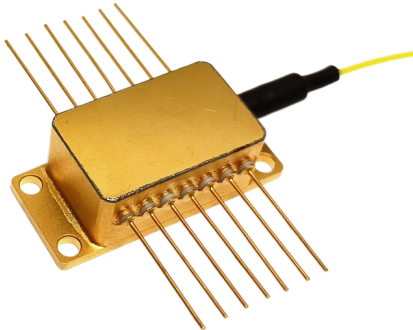


## FPL-FBG-775-14BF



Single mode FBG-stabilized laser diode module designed for optical measurement and communication. The laser is packaged in Butterfly package with monitor photodiode and thermo-electric cooler (TEC). Module is pigtailed with 0.5-0.9 m of single mode or polarization maintaining (optional) fiber and connectorized by FC/APC connector.

### Optical and electrical characteristics:

Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit
Optical Power	$P_f$	CW	10	20		mW
Pulsed Optical Power	$P_{fp}$	Pulse, $\tau=10\mu s$ , $D=1\%$		40		mW
Threshold Current	$I_{th}$		30	40	70	mA
Forward Current	$I_f$	$P_f$		100	150	mA
Pulsed Forward Current	$I_{fp}$	$P_{fp}$ , $\tau=10\mu s$ , $D=1\%$		200		mA
Forward Voltage	$V_f$	$P_f$			2.5	V
Center Wavelength	$\lambda_c$	$P_f$	774	775	776	nm
Spectral Width	$\Delta\lambda_c$	$P_f$			0.5	nm
Monitor Current	$I_m$	$P_f$	20		500	$\mu A$
PD Dark Current	$I_d$	$V_{rd}=5V$			0.1	$\mu A$
TEC Current	$I_t$	$I_t$			1.4	A
TEC Voltage	$V_t$	$TC=70^\circ C$			2.7	V
Thermal Resistance	$R_0$	$T=25^\circ C$ , $B=3900\pm 100K$	9.5	10	10.5	k $\Omega$
Extinction Ratio (PM fiber)	$X_p$	$P_f$	20			dB

Absolute maximum ratings:

Parameter	Symbol	Rating	Unit
Forward Current	$I_f$	170	mA
Reverse Voltage	$V_r$	1.8	V
PD Reverse Voltage	$V_{rd}$	7	V
Minimum Operation Case Temperature	$T_{ol}$	-40	°C
Maximum Operation Case Temperature	$T_{oh}$	70	°C
Minimum Storage Temperature	$T_{sl}$	-40	°C
Maximum Storage Temperature	$T_{sh}$	70	°C
TEC Current	$I_t$	1.5	A

Packaging:

Butterfly Type 1 (Default):				Butterfly Type 2:			
№	Parameter	№	Parameter	№	Parameter	№	Parameter
1	Cooler anode +	8	NC	1	Thermistor	8	Case
2	Thermistor	9	NC	2	Thermistor	9	Case
3	PD anode -	10	LD anode +	3	LD DC cathode -	10	Case
4	PD cathode +	11	LD cathode -	4	PD anode -	11	LD anode +
5	Thermistor	12	NC	5	PD cathode +	12	LD RF cathode -
6	NC	13	Case	6	Cooler anode +	13	LD anode +
7	NC	14	Cooler cathode -	7	Cooler cathode -	14	NC

