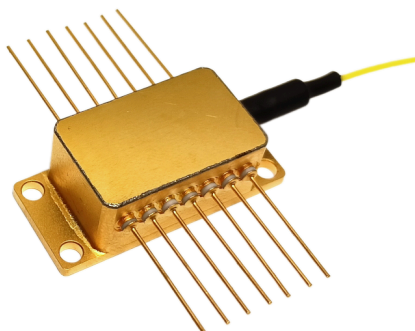


## TLD-775-14BF



Stable narrow band laser diode module with a wavelength tuning possibility in 0.5-1 nm range. 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			mW
Threshold Current	$I_{th}$		30	40	70	mA
Forward Current	$I_f$	$P_f$		100	150	mA
Forward Voltage	$V_f$	$P_f$			2.5	V
Center Wavelength	$\lambda_c$	$P_f$	774	775	776	nm
PZT Tuning Range	$\Delta f_p$		0.5			nm
Spectral Width	$\Delta \lambda_c$	$P_f$			1	MHz
PZT Tuning Voltage	$V_p$		-10		150	V
Side Mode Suppression Ratio		SMSR	30			dB
Single-Frequency Continuous Tuning Range	$\Delta f$		1			GHz
Current Tuning	$\Delta \lambda / \Delta I$			0.001		nm/mA
Temperature Tuning	$\Delta \lambda / \Delta T$			0.08		nm/°C
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°C			2.7	V
Thermal Resistance	$R_0$	T=25°C, B=3900±100K	9.5	10	10.5	kΩ
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 TLD:			
№	Parameter	№	Parameter
1	Cooler anode +	8	PZT -
2	Thermistor	9	NC
3	PD anode -	10	LD anode +
4	PD cathode +	11	LD cathode -
5	Thermistor	12	NC
6	NC	13	Case
7	PZT +	14	Cooler cathode -

