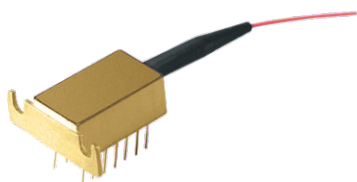


## BLD-940-14DL



Single frequency FBG-stabilized laser diode module designed for optical measurement and communication. The laser is packaged in 14pinDIL 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:

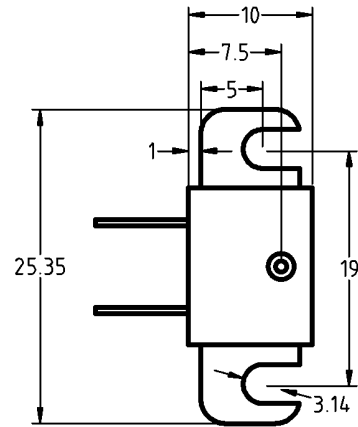
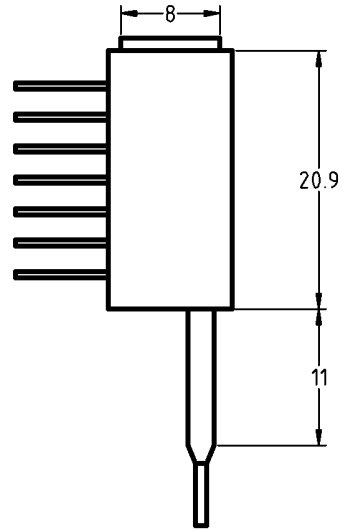
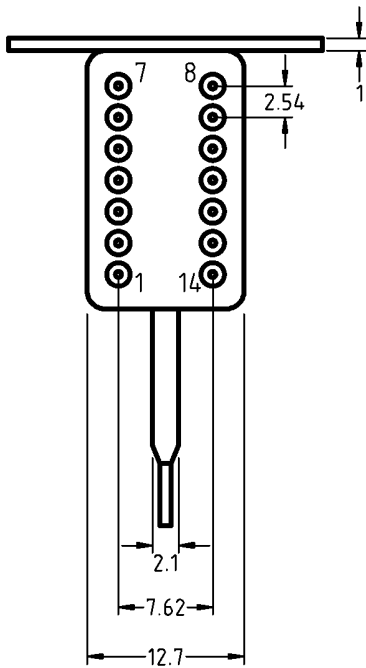
Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit
Optical Power	$P_f$	CW	80	100		mW
Pulsed Optical Power	$P_{fp}$	Pulse, $\tau=10\mu s$ , $D=1\%$		150		mW
Threshold Current	$I_{th}$		20	40	50	mA
Forward Current	$I_f$	$P_f$		200	250	mA
Pulsed Forward Current	$I_{fp}$	$P_{fp}$ , $\tau=10\mu s$ , $D=1\%$		300		mA
Forward Voltage	$V_f$	$P_f$			2.5	V
Center Wavelength	$\lambda_c$	$P_f$	939	940	941	nm
Spectral Width	$\Delta\lambda_c$	$P_f$			1	MHz
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	$V_t$	$TC=70^\circ C$			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	$I_f$	300	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:

14pinDIL:			
№	Parameter	№	Parameter
1	Cooler anode +	8	PD anode -
2	NC	9	LD cathode -
3	NC	10	NC
4	NC	11	Thermistor
5	LD anode +	12	Thermistor
6	NC	13	NC
7	PD cathode +	14	Cooler cathode -



Emission spectrum:

