

## 1270-1610nm CWDM 8PIN Butterfly Device (Without Isolator)

### FGB8xx-xx0x-xx

#### Description

The high quality MQW DFB laser diode with butterfly package can meet high power of optical transmitter system. Also, the built-in thermo-electric cooler (TEC) can make the laser diode work properly in various environments.

#### Features:

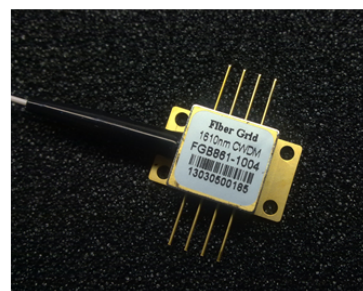
Multi-Quantum Well (MQW) Distributed Feedback (DFB) lasers

8-pin butterfly package

Built-in thermistor, and TEC

Operating Temperature -20~ +70°C

Single-mode fiber pigtail.



#### Absolute Maximum Ratings

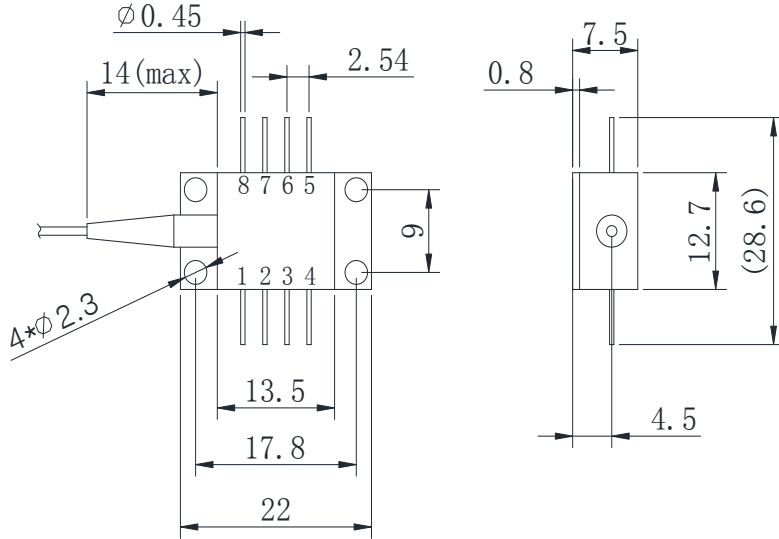
Parameter	Symbol	Min	Max	Unit	Condition
Operating Case Temperature	$T_c$	-20	70	°C	--
Storage Temperature	$T_{stg}$	-40	85	°C	--
Reverse Voltage	$V_R$	--	2.0	V	
Forward current	$I$		120	mA	
Thermoelectric cooler voltage	$V_{TEC}$		3.0	V	
Thermoelectric cooler current	$I_{TEC}$		1.5	A	
Lead solder Temperature	--		260	°C	--
Lead Soldering Time	--		10	s	--

#### Optical/Electrical Characteristics (T=25°C, unless otherwise stated)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical Output Power	$P_o$	6.0	--	12.0	mW	CW,
Threshold Current	$I_{th}$	--	8	15	mA	T=25 °C
Forward Voltage	$V_F$	--	1.1	2.0	V	
Operating Current	$I_{op}$	--	--	90	mA	CW, T=25 °C
Center Wavelength	$\lambda_c$	$\lambda_c-3$	$\lambda_c$	$\lambda_c+3$	nm	CW, T=25 °C
Side-mode Suppression Ratio	SMSR	35	40	--	dB	$I_{op}=30mA$
Spectral Width (-20 dB)	$\Delta\lambda$	--	0.1	1.0	nm	
Wavelength temperature coefficient	$\Delta\lambda/\Delta T$	--	0.08	0.12	nm/°C	
Monitor Current	$I_{mon}$	50	--	1500	μA	$V_R=5 V$ ,
Monitor Dark Current	$I_D$	--	--	50	nA	$V_R=5 V$
Thermistor Resistance	$R_T$	9.5	10.0	10.5	KΩ	T=25 °C
Thermistor B-Value		--	3950	--	K	25°C/85°C
Tracking Error	TE	-1.0	--	+1.0	dB	$TE=10\log(P_o(T_c)/P_o(25^\circ C))$

### Dimensions and Pin Description

Dimensions are in millimeters. All dimensions are  $\pm 0.1\text{mm}$  unless otherwise specified.



Pin	Description
1	TE Cooler (+)
2	Thermistor
3	Thermistor
4	MPD (-)
5	MPD (+)
6	LD (-)
7	LD (+)
8	TE Cooler (-)

### Order information

F G B8 xx - xx 0 x - 0 0

