

1550nm Semiconductor Optical Amplifier

FGBSOA-155X-00

Features:

- 14-pin butterfly package(Shunt Clips - required to protect the butterfly package pins)
- Built-in thermistor and TEC
- Single mode input /output
- Operating Temperature $-20\sim +70^{\circ}\text{C}$
- Low chip-to-fiber coupling loss
- Efficient coupling into single mode fiber



Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Condition
Operating Case Temperature	T_c	-20	70	$^{\circ}\text{C}$	--
Storage Temperature	T_{stg}	-40	85	$^{\circ}\text{C}$	--
Laser Bias Current	I		100	mA	
Thermoelectric cooler voltage	V_{TEC}		2.6	V	
Thermoelectric cooler current	I_{TEC}		1.5	A	$-20^{\circ}\text{C} < T_c < +70^{\circ}\text{C}$
Lead solder Temperature	--		260	$^{\circ}\text{C}$	--
Lead Soldering Time	--		10	s	--

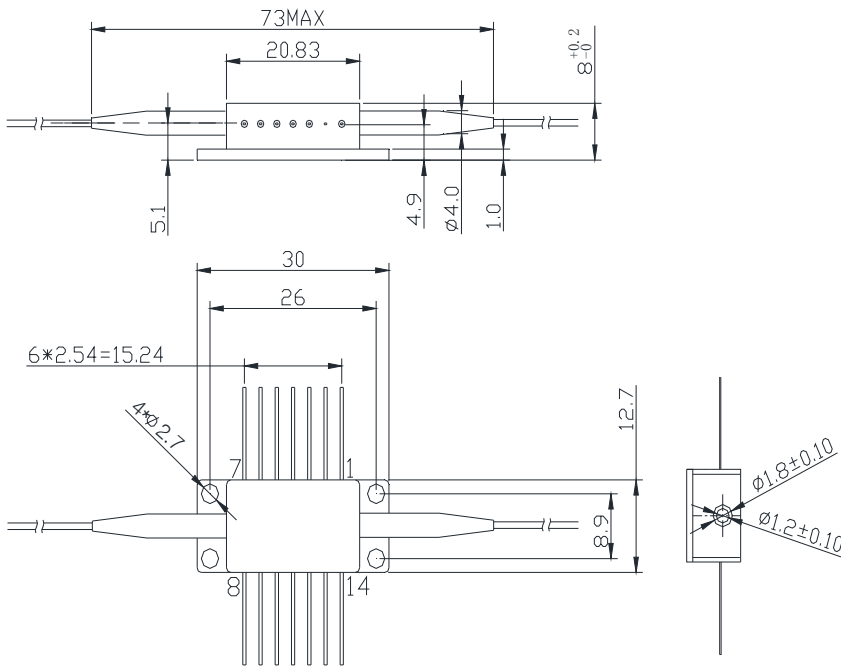
Optical/Electrical Characteristics (T=25 $^{\circ}\text{C}$, unless otherwise stated)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Fiber-to-Fiber Gain	dB	--	20	--	dB	
Output Power	mW	--	1.0	--	mW	T=25 $^{\circ}\text{C}$
Rise Time	ns	--	0.5	--	ns	
Forward Voltage	V_F	--	1.1	2.0	V	
Center Wavelength	λ_c	--	1550	--	nm	CW, T=25 $^{\circ}\text{C}$
Wavelength Band	nm	1520	--	1580	nm	
Back reflection	dB	--	<-47	--	dB	
Fibre Reflection	%	--	0.1	--	nm	
Spectral Width (FWHM)	nm	30	--	--	nm	
Thermistor Resistance	R_T	9.5	10.0	10.5	K Ω	T=25 $^{\circ}\text{C}$
Thermistor B-Value		--	3950	--	K	25 $^{\circ}\text{C}/85^{\circ}\text{C}$
Tracking Error	TE	-1.0	--	+1.0	dB	TE=10log(Po(Tc)/Po(25 $^{\circ}\text{C}$))

Dimensions and Pin Description

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

Type: 00



Pin	Description
1	TEC(+)
2	Thermistor
3	N/C
4	N/C
5	Thermistor
6	N/C
7	N/C
8	N/C
9	N/C
10	SOA Anode (+)
11	SOA Cathode (-)
12	N/C
13	Case GND
14	TEC(-)

Order information

FG BSOA - 1 55 X - 00

