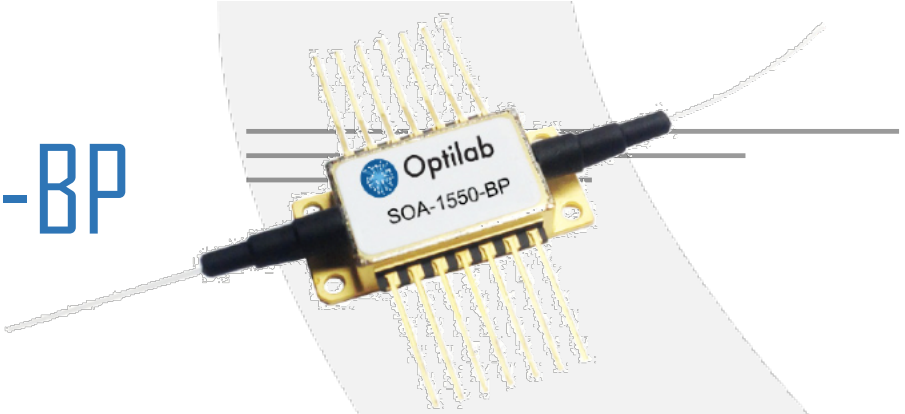
# SOA-1550-BP




DEVICE

## 1550 nm Semiconductor Optical Amplifier, Butterfly Package

OVERVIEW

The Optilab SOA-1550-BP is a semiconductor optical amplifier with high fiber-to-fiber gain, designed to be used in general applications to increase optical launch power to compensate for loss of other optical devices, or as a broadband ASE source. For increased utility, the SOA-1550-BP can be ordered with either Single Mode (SM) or Polarization Maintaining (PM) fiber input and output ports. The Optilab SOA-1550-BP has an operational wavelength between 1510 nm and 1590 nm, with a peak gain of a typical 20 dB within that region. The 14-pin butterfly packaging is MSA compliant and laser-welded hermetically sealed, with a thermistor and thermo-electric cooler (TEC) for ensured reliability, stability and performance.

FEATURES

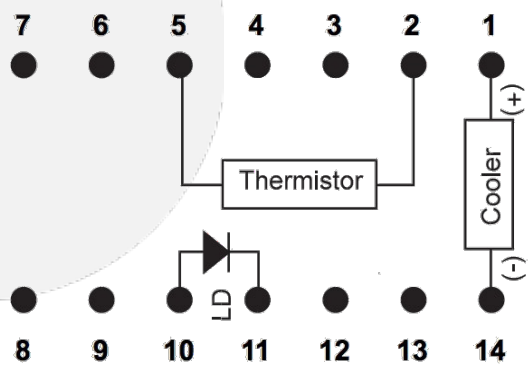
- 1510nm-1590nm operational wavelength
- High-fiber-to-fiber gain of 20 dB typ.
- Up to 14 dBm output
- Built in TEC
- 14 pin butterfly, hermetically sealed package
- PM Panda fiber input/output (optional)

USE IN

- Swept Fiber Laser
- Booster and in-line amplification
- General purpose test and measurement
- Optical network
- Fiber sensing

PIN-OUT DIAGRAM

| | |
|---|---|
| 1 TEC (+) | 8 NC |
| 2 Thermistor | 9 NC |
| 3 NC | 10 LD Anode (+) |
| 4 NC | 11 LD Cathode (-) |
| 5 Thermistor | 12 NC |
| 6 NC | 13 NC |
| 7 NC | 14 TEC (-) |



# SOA-1550-BP

## OPERATING SPECIFICATIONS

| | |
|---|---|
| Operational Wavelength | 1510 nm – 1590 nm |
| Peak Gain | 19 dB min., 20 dB typ. |
| Gain Ripple | ± 1 dB max. |
| Polarization Dependent Gain (PDG) | ± 1 dB max. |
| Saturation Output Power | 14 dBm typ. |
| Forward Voltage | 2 V typ. |
| Operating Bias Current | 350 mA type |
| Thermistor Resistance | 10 k Ω typ. @ 25°C |
| Connectors | FC/APC, others optional |

## ABSOLUTE MAXIMUM RATINGS

| | |
|---|---|
| Operating Temperature (Case) | -10°C to +70°C, TQ version available |
| Storage Temperature | -40°C to +85°C |
| Operating Humidity | 0% to 85% Relative Humidity |
| Operating Bias Current | 450 mA |
| Optical Amplimer Reverse Bias | 2 V |
| Thermistor Current | 5 mA |
| TEC Current | 1.8 A |
| TEC Voltage | 3.4 V |

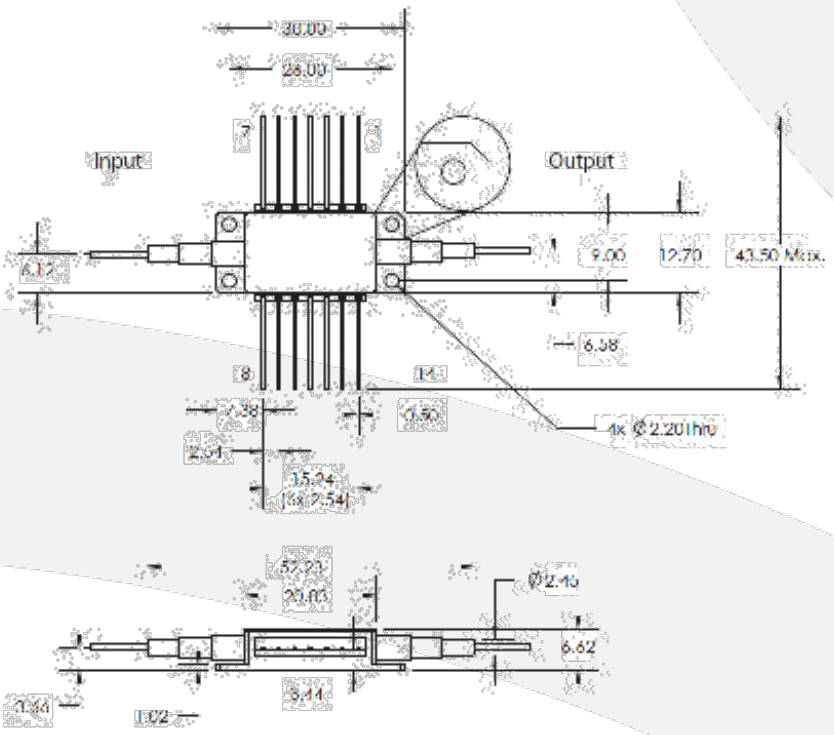
## OPTIONS

**SOA-1550-BP-XX**

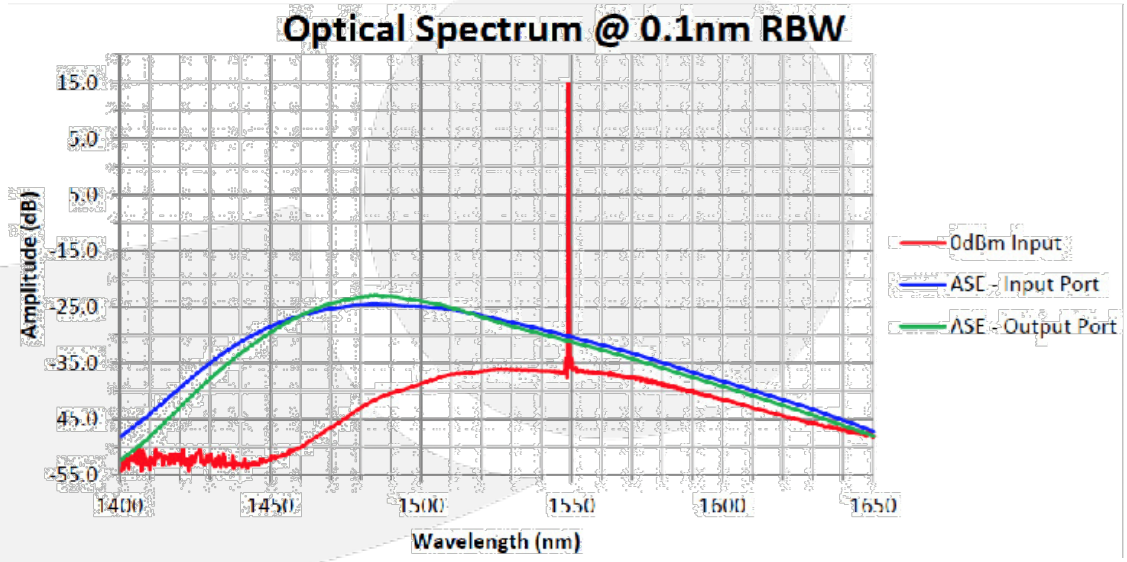
**XX** SM: Single Mode or PM: Polarization Maintaining

# SOA-1550-BP

## MECHANICAL DRAWING




## DETAILED SPECTRUM INFORMATION



# SOA-1550-BP

## DETAILED SPECTRUM INFORMATION