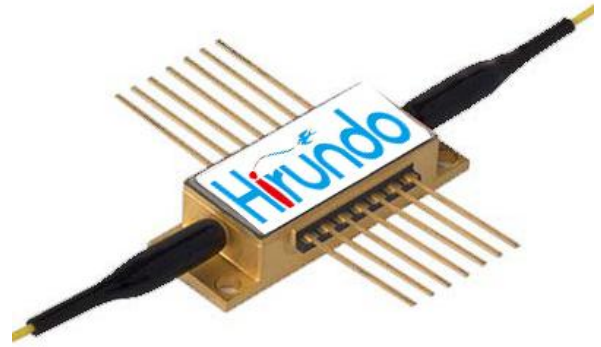


HI-SOA-55 Series

Features

- 14 PIN Butterfly Package
- High gain
- Broad optical bandwidth
- Low ripple on ASE power
- Qualified as per intent of Telcordia GR-468
- RoHS



Description

Hirundo's HI-SOA-55 Series is a semiconductor optical amplifier (SOA). It is designed to have high gain and high output power at 1310nm when operated at stabilized temperature of 25°C. It's high performance, wide spectrum, low ripple make it well available on customer's special request.

Applications

- Long distance transmission system
- Fiber Optic Communications
- Loss compensation
- Optical Test Instrument

Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device.

Parameter	Symbol	Min	Typ	Max	Unit
Storage Temperature	Ts	-40		85	°C
Operating Temperature	Tc	-20		70	°C
Relative Humidity	RH	5		85	%
Forward Voltage	V			2	V
Reverse Voltage	Vr			2	V
Max Operating Current	I			500	mA

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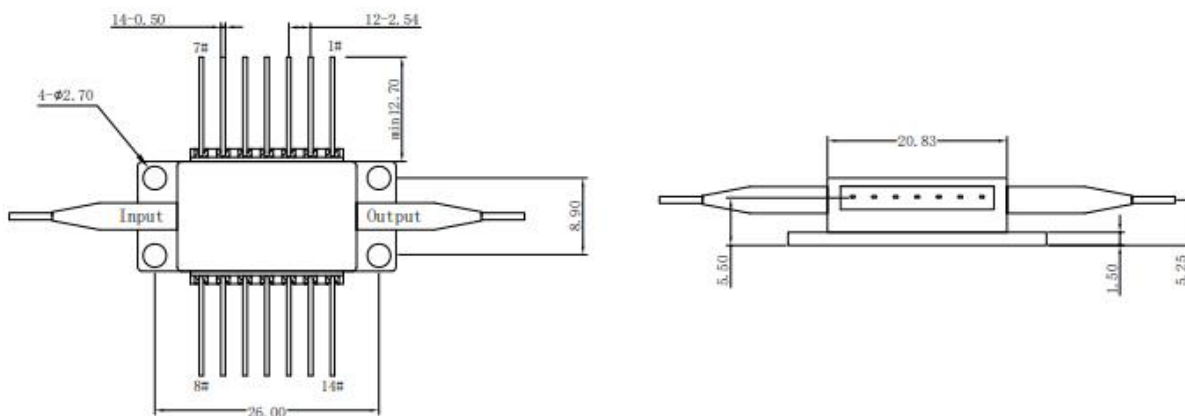
1550nm Semiconductor Optical Amplifier

TEC Current	ITEC			1.2	A
TEC Voltage	VTEC			3.5	V
ESD(HBM)	ESD			500	V

Optical/Electrical Characteristics(Tc=25°C)

Parameter	Symb	Condition	Min	Typ	Max	Unit
Operating Current	I _{op}	--		250	400	mA
Operating Voltage	V _{op}	I _{op}			1.8	V
Saturation Power	P _{sat}	I _{op} =250mA	12			dBm
Gain	G		15			dB
Work Wavelength Range	λ		1490	1550	1590	nm
ASE bandwidth	BW	-3dB		45		nm
ASE ripple	R				0.5	dB
Polarization Dependent	PDG			2		dB
Noise figure	NF			7.5		dB
Thermistor Resistance	R _{th}	25°C	9.5	10	10.5	kOhm
Thermistor Sensitivity Index	β			3892		K

Outline Drawing



Connection

Pin Assignments			
Pin	Function	Pin	Function
1	TEC (+)	8	NC

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1550nm Semiconductor Optical Amplifier

2	Thermistor	9	NC
3	NC	10	LD (+)
4	NC	11	LD (-)
5	Thermistor	12	NC
6	NC	13	Case Ground
7	NC	14	TEC (-)

Ordering information

e.g.: HI - SOA - 55 SMF

