840nm Semiconductor Optical Amplifier, Non-linear



Description

The PL-SOA-A-A81-W0840-SASA is a polarization-insensitive optical amplifier with advanced epitaxial wafer growth and opto-electronic packaging techniques that enable a high output saturation power, lownoise figure, and large gain across a broad spectral bandwidth.

Features

- Wide Optical Bandwidth
- High Output Power
- Low Polarization Sensitivity
- MQW or Bulk Structure

E/O Characteristics

Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit
Optical Power	Pf	CW	10			mW
Forward Current	If	Pf		200	300	mA
Forward Voltage	Vf	Pf			2.5	V
Center Wavelength	λc	Pf	820	840	860	nm
Spectral Width	Δλc	Pf	20		60	nm
Small Signal Gain	G	CW, If	20	25		dB

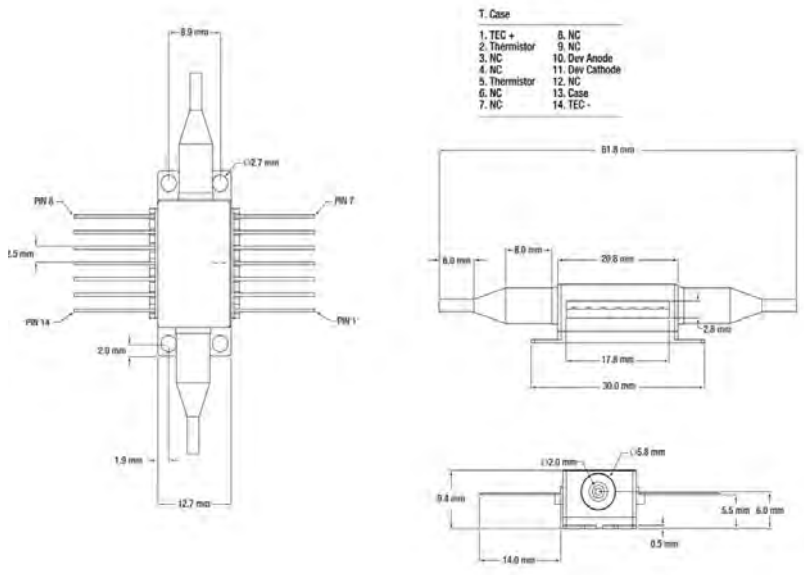
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Saturation Output Power	Pd	CW, If	10			dBm
Polarization Dependent Gain	PDG	CW, If		10		dB
Gain Ripple	δG	CW, If			1	dB
Noise Figure	NF	CW, If		8		dB
TEC Current	It	It			1.4	A
TEC Voltage	Vt	TC=70°C			2.7	V
Thermal Resistance	Ro	T=25°C, B=3900±100K	9.5	10	10.5	kΩ
Extinction Ratio (PM fiber)	Xp	Pf	18			dB

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Forward Current	If	350	mA
Reverse Voltage	Vr	1.8	V
PD Reverse Voltage	Vrd	7	V
Minimum Operation Case Temperature	Toi	-40	°C
Maximum Operation Case Temperature	Toh	70	°C
Minimum Storage Temperature	Tsl	-40	°C
Maximum Storage Temperature	Tsh	70	°C
TEC Current	It	1.5	A

Dimensions and Pin definitions



NO.	Function	NO.	Function
1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	NC	10	SOA Anode (+)
4	NC	11	SOA Cathode (–)
5	Thermistor	12	N/C
6	N/C	13	Case
7	N/C	14	Thermoelectric Cooler (-)

Application

- Booster Amplifier
- Telecom and Datacom
- Loss Compensation

Ordering Info

PL-SOA-☆-A8▽-W□□□□-XX

☆ : Output Power
A: 5db
B: 10db
▽：Bandwidth
1: 60-70nm
2: 30-40nm
□□□□：Wavelength
680: 680nm
840: 840nm
1060: 1060nm
*****
1550: 1550nm
1600: 1600nm
XX: Fiber and Connector Type
SASA=(HI780+ FC/APC)+(HI780+ FC/APC)
SPSP=(HI780+ FC/PC)+(HI780+ FC/PC)
PAPA=(PM Fiber+ FC/APC)+(PM Fiber+ FC/APC)
PPPP=(PM Fiber+ FC/PC)+(PM Fiber+ FC/PC)
PAPA=(PM Fiber+ FC/APC)+(PM Fiber+ FC/APC)