

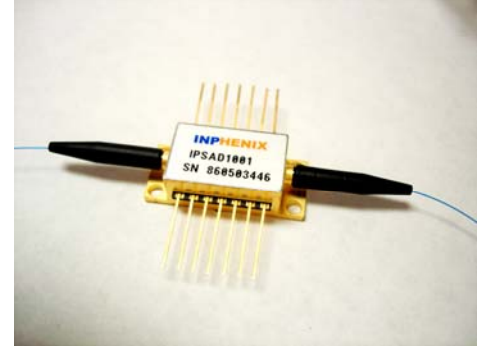
INPHENIX

Semiconductor Optical Amplifier Device (In-Line Type)

IPSAD0801 (880nm)

Features

- Wide Optical Bandwidth
- High Gain
- Low Gain Ripple
- MQW or Bulk Structure



Applications

- In-Line Amplifier
- Loss Compensation

Device Specifications

Parameter	Symbol	Specifications			Unit
		Min.	Typ.	Max.	
Drive Current	I_F	-	150	200	mA
Operating Wavelength	λ_o	-	880	-	nm
3dB Optical Bandwidth	$\Delta\lambda_{3dB}$	-	40	-	nm
Small Signal Gain at @ -25dBm Signal	G_{max}	-	20	-	dB
Gain Ripple with Respect to λ	ΔG	-	-	0.2	dB
Saturation Output Power	P_{sat}	-	10	-	dBm
Noise Figure	NF	-	-	8	dB
Polarization Dependent Gain	PDG	10	-	-	dB

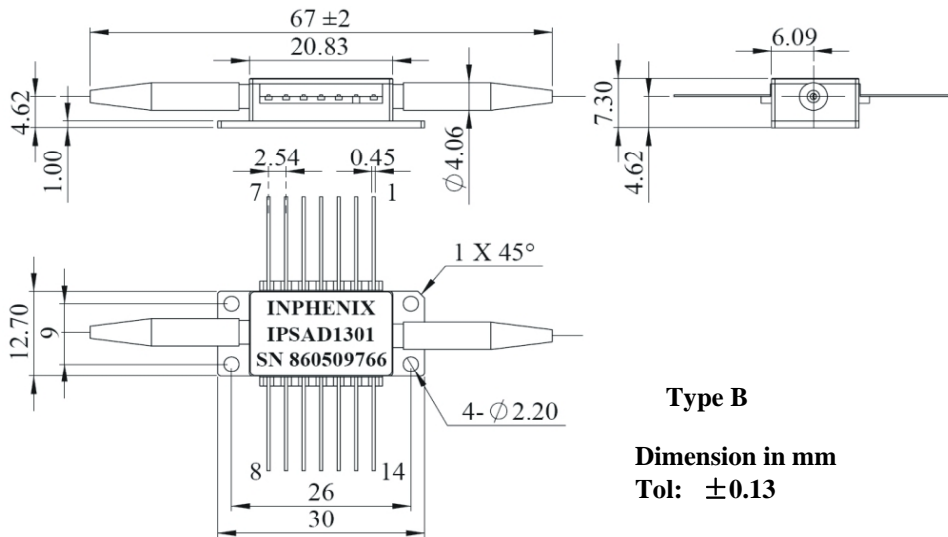
INPHENIX

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit
Operating Temperature	- 20	70	°C
Storage Temperature	- 40	85	°C
SOA Forward Current	-	250	mA
SOA Reverse Voltage	-	2.5	V
TEC Drive Current	-	1.5	A
TEC Drive Voltage	-	3.6	V
Thermistor Resistance	10k Ω @ 25°C		
SOA Chip Temperature Setting	25°C		
Fiber Type	SMF/PMF/MMF ClearCurve Fiber		
Fiber Jacket	250 μ m tight buffer with/without 900 μ m loose tube, or 900 μ m tight buffer		
Package	14-pin Butterfly Type B or C		

INPHENIX

Package Dimensions



Type B

Dimension in mm

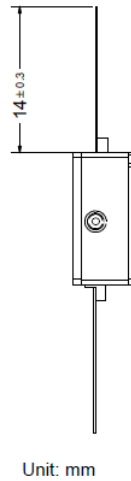
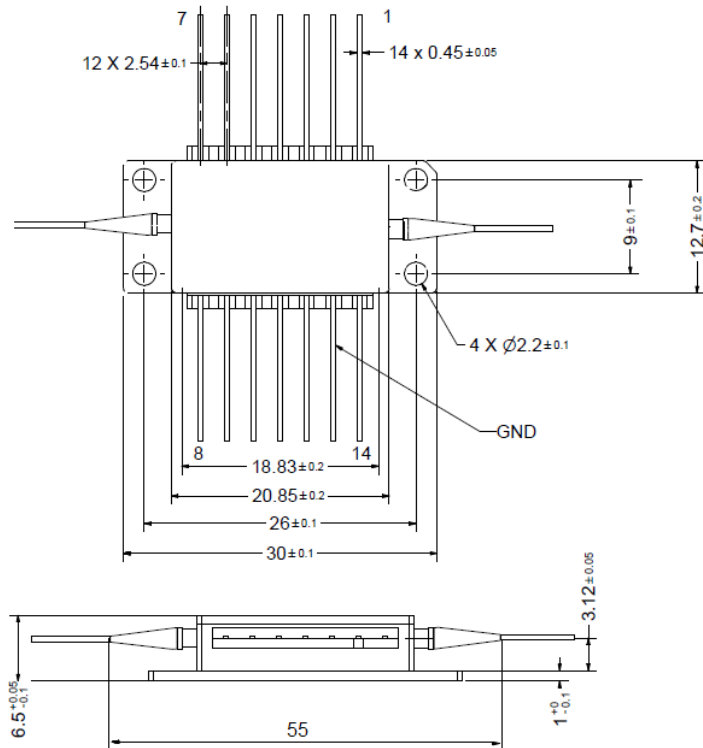
Tol: ± 0.13

Pin Definition

Pin	14-pin Butterfly
1	TEC(+)
2	NC
3	Thermistor *
4	Thermistor *
5	NC
6	NC
7	NC
8	NC
9	NC
10	SOA(+)
11	SOA(-)
12	NC
13	Case
14	TEC(-)

Option: Pin 2 & Pin 5 for thermistor

INPHENIX



Type C

Dimension in mm
Tol: ±0.13

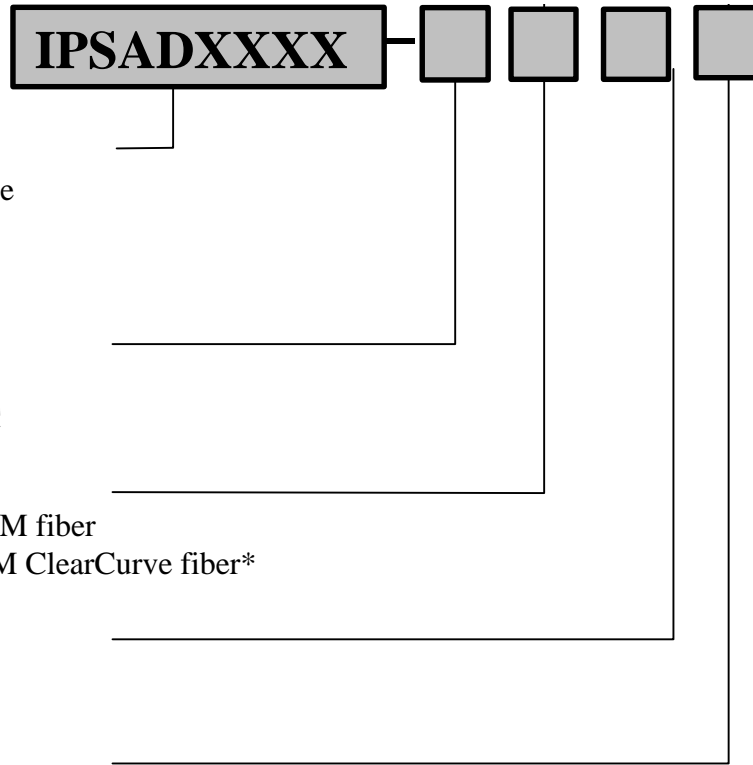
Pin Definition

Pin	14-pin Butterfly
1	TEC(+)
2	NC
3	Thermistor *
4	Thermistor *
5	NC
6	NC
7	NC
8	NC
9	NC
10	SOA(+)
11	SOA(-)
12	NC
13	Case
14	TEC(-)

Option: Pin 2 & Pin 5 for thermistor

INPHENIX

Part Numbering System



Model:
IPSADXXXX: SOA Device

Package:
5: 14-pin Butterfly, Type B
6: 14-pin Butterfly, Type C

Fiber Type:
1: SM fiber
2: PM fiber
3: MM fiber
8: SM ClearCurve fiber*

Jacket Type:
1: 900 μ m
2: 250 μ m

Connector Type:
0: No Connectors
3: FC/APC
4: FC/UPC
7: SC/APC
8: SC/UPC

Example: IPSAD1301-5110: 1310nm SOA in 14-pin Butterfly Package with 900 μ m SM Fiber with no Connectors.

* SM ClearCurve fiber is not available on IPSAD0801, IPSAD0901 and IPSAD0902 products.

Corporate Office
250 North Mines Rd
Livermore, CA 94551
Tel: 925.606.8809
Fax: 925.606.8810
www.inphenix.com
sales@inphenix.com

All information contained herein is believed to be accurate and is subject to change without notification. No responsibility is assumed. Please contact InPhenix for more information. InPhenix and the InPhenix logo are trademarks of InPhenix Inc. All rights are reserved.