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Semiconductor Optical Amplifier Device

IPSAD1001 (1050nm)

Features

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



Applications

- Optical Coherence Tomography
- Metrology
- Sensor
- Gain Medium

Device Specifications

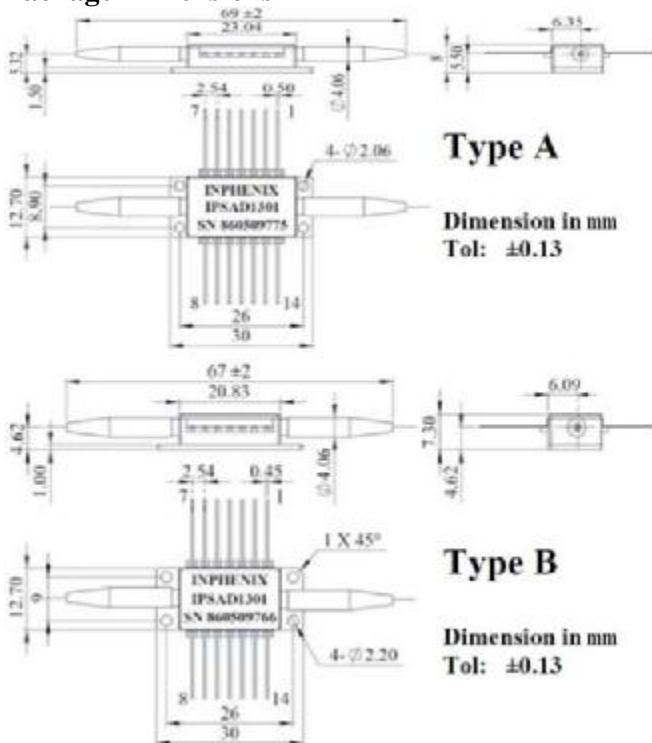
Parameter	Symbol	Specifications			Units
		Min.	Typ.	Max.	
Drive Current	I_F		300	500	mA
Operating Peak Wavelength	λ_P	1020	1040	1070	nm
3dB Bandwidth	$\Delta\lambda_{3dB}$	45	-	-	nm
Small Signal Gain at λ_p @ -25 dBm Signal	G_{MAX}	To Be Confirmed			dB
Gain Ripple with Respect to λ	ΔG	-	1	-	dB
Saturation Output Power	P_{SAT}	10	-	-	dBm
Noise Figure	NF	To Be Confirmed			dB
Polarization Dependent Gain	PDG	15	-	-	dB

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Absolute Maximum Ratings

Parameter	Min.	Typ.	Max.	Units
Operating Temperature	-	25	-	°C
Storage Temperature	-40	-	85	°C
SOA Forward Current	-	-	600	mA
SOA Reverse Voltage	-	-	2	V
TEC Drive Current	-	-	1.5	A
TEC Drive Voltage	-	-	3.6	V
Thermistor Resistance	10k-Ohm @ 25°C			
SOA Chip Temperature Setting	25			°C
Fiber Type	Single Mode Fiber			
Fiber Jacket	250/900			价
Package	14 Pin Butterfly Package			

Package Dimensions



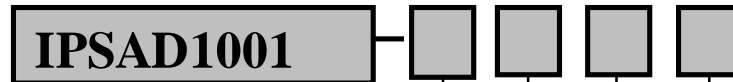
Pin Definition

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

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Part Numbering Structure



Model:

IPSAD1001: 1050nm SOA Device

Package:

4: 14-pin Butterfly, Type A

5: 14-pin Butterfly, Type B

Fiber Type:

1: SM Fiber

2: PM Fiber

Fiber Type:

1: 900 μ m loose tube

Connector Type:

0: No Connectors

3: FC/APC

4: FC/UPC

7: SC/APC

8: SC/UPC

Example: IPSAD1001- 5113: 1050nm SOA in 14-pin Butterfly Type-B Package with 900 μ m SM Fiber with FC/APC Connectors.

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