

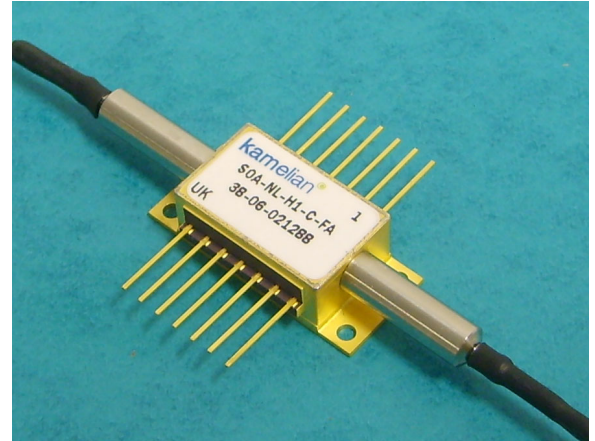
1550nm NONLINEAR SOA

Description

This high performance semiconductor optical amplifier is primarily intended for use as an optical nonlinear element in ultra high bit rate all optical switching applications.

The buried heterostructure device offers short gain recovery times with low polarisation dependence. Variants of differing lengths and confinement factors are available.

The nonlinear SOA includes a thermistor and thermo-electric cooler in a 14-pin butterfly package with single mode fiber pigtailed.



Applications

This product is appropriate for use as a nonlinear optical element in a range of applications which use Cross Gain Modulation, Cross Phase Modulation or Four Wave Mixing. Devices of this type have been used successfully in a range of configurations including UNI, SLALOM and DI interferometers at speeds up to 80 Gbit/s.

Specifications

(1529-1563 nm with 0dBm input)

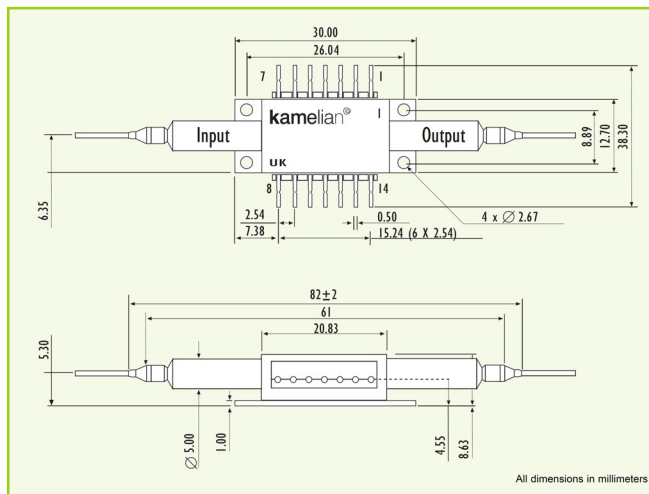
PARAMETER	MIN SPECIFICATION	TYPICAL SPECIFICATION	MAX SPECIFICATION
Fiber-to-fiber gain - (Min)	10dB		
Noise figure		8dB	10dB
Gain recovery time (1/e)		25ps	
Polarisation dependence		1dB	2dB
ASE Centre Wavelength	1530nm		1570nm
Bias current		300mA	400mA
Operating temp	-5°C		70°C
TEC Drive Max		0.7A/1.5V	

FEATURES

- 1550nm WINDOW
- HIGH GAIN
- LOW POLARISATION DEPENDENCE
- SHORT GAIN RECOVERY TIME
- COMPACT PACKAGE
- USED AT SPEEDS UP TO 80Gbit/s

Pin Allocation & Package Dimensions

PIN	DEFINITION	PIN	DEFINITION
1	TEC +	8	NC
2	THERMISTOR	9	NC
3	NC	10	SOA ANODE (+)
4	NC	11	SOA CATHODE (-)
5	THERMISTOR	12	NC
6	NC	13	CASE GND
7	NC	14	TEC -



FIBER CONNECTOR	
CODE	CONNECTOR TYPE
FP	FC/PC
FA	FC/APC
FU	FC/UPC
LP	LC/PC
LA	LC/APC
LU	LC/UPC
SP	SC/PC
SA	SC/APC
SU	SC/UPC
∅	None

Ordering Information

SOA - NL - CFL - W - ZZ

CF: Confinement factor. Options are H(high) and L(low)
L: Chip Length: 1 for 1mm and 2 for 2mm

Wavelength (C for C Band is standard)

Connector Type (See Table Above)



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