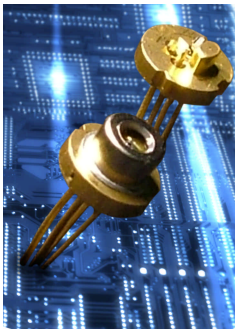
SOA-R-OEC-1550-TO 1.55µm Reflective Semiconductor Optical Amplifier (SOA) High Temp Performance



Features

- 1.55µm operation
- High small signal gain (>25dB)
- Low front facet reflectivity (<10^{-5})
- 1.5GHz electrical bandwidth
- InP Buried Heterostructure design

Application Examples

- WDM-PON

Description

The reflective SOA-R is a mode expanded single polarisation reflective amplifier offering high gain over an extended temperature range. Packaged in a AR coated flat window TO56 can and incorporating a monitor photodiode, the device is suitable for use in BiDi mounted WDM PON applications up to 1.25Gb/s

Optical and electrical specifications All measurements are at chip temperature of 20°C and 1550nm unless stated otherwise.

SOA-R-OEC-1550-TO	Test condition	Min	Typ	Max	Unit
Peak gain wavelength	50mA & 20C		1535		nm
Peak chip gain at 70C	80mA & 70C		30		dB
Saturated output @ 20C	1550nm 50mA & 20C		5		dBm
Saturated output @ 70C	1550nm 80mA & 20C		2		dBm
Chip Noise figure	1550nm, 50mA & 20C		6		dB
Polarisation dependent gain	1550nm, 50mA & 20C		20		dB
Farfield FWHM parallel	100mA & 20C		18		°
Farfield FWHM perpendicular	100mA & 20C		18		°
Maximum drive	Across temp range			100	mA
RF bandwidth	1550nm 50mA & 20C and 1550nm 80mA & 70C		1.5		GHz

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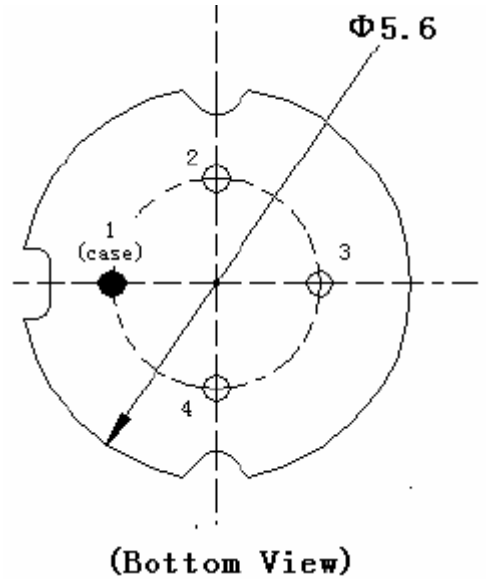
Absolute maximum ratings

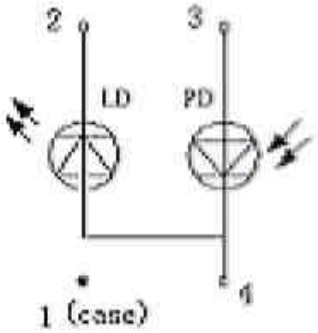
Item	Symbol	Rating	Unit
Maximum DC current forward bias	I_{Fmax}	100	mA
Maximum DC voltage forward bias	V_{Fmax}	2	V
Maximum DC voltage reverse bias	V_{Rmax}	2.0	V
Maximum optical input power	Pmax	+13	dBm
RF Voltage (peak to peak)	V_{RF}	4	V
Operating temperature SOA-R	T	0-70	°C
Storage temperature	T_S	-40-85	°C

Ordering Information— SOA-R-OEC-1550-TO

For Custom products please contact CIP Sales on +44 1473 663210 or e-mail sales@ciphotonics.com. For details of your local agent, visit www.ciphotonics.com

Pin assignment and schematic





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