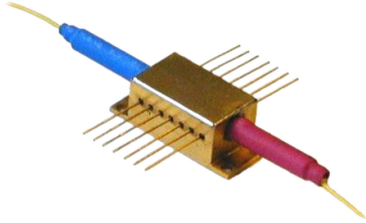


SOA-790-14BF



Single-pass, traveling-wave semiconductor optical amplifier. The SOA consists of a highly efficient Multiple Quantum Well(MQW) layer structure. The laser is packaged in Butterfly package with monitor photodiode and thermo-electric cooler (TEC). Module is pigtailed with 0.5-0.9 m of single mode or polarization maintaining (optional) fiber and connectorized by FC/APC connector.

Optical and electrical characteristics:

Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit
Optical Power	P_f	CW	10			mW
Forward Current	I_f	P_f		200	300	mA
Forward Voltage	V_f	P_f			2.5	V
Center Wavelength	λ_c	P_f	770	790	810	nm
Spectral Width	$\Delta\lambda_c$	P_f	20	35		nm
Small Signal Gain	G	CW, I_f	20	25		dB
Saturation Output Power	P_d	CW, I_f	10			dBm
Polarization Dependent Gain	PDG	CW, I_f		10		dB
Gain Ripple	δG	CW, I_f			1	dB
Noise Figure	NF	CW, I_f		8		dB
TEC Current	I_t	I_t			1.4	A
TEC Voltage	V_t	TC=70°C			2.7	V
Thermal Resistance	R_0	T=25°C, B=3900±100K	9.5	10	10.5	kΩ
Extinction Ratio (PM fiber)	X_p	P_f	6			dB

Absolute maximum ratings:

Parameter	Symbol	Rating	Unit
Forward Current	I_f	350	mA
Reverse Voltage	V_r	1.8	V
PD Reverse Voltage	V_{rd}	7	V
Minimum Operation Case Temperature	T_{ol}	-40	°C
Maximum Operation Case Temperature	T_{oh}	70	°C
Minimum Storage Temperature	T_{sl}	-40	°C
Maximum Storage Temperature	T_{sh}	70	°C
TEC Current	I_t	1.5	A

Packaging:

Butterfly SOA:			
№	Parameter	№	Parameter
1	Cooler anode +	8	NC
2	Thermistor	9	NC
3	NC	10	LD anode +
4	NC	11	LD cathode -
5	Thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler cathode -

