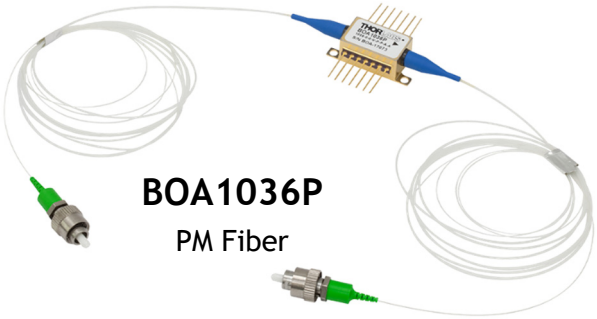
O-Band Booster Optical Amplifier



BOA1036P

PM Fiber

Description

Thorlabs' BOA1036P is a high saturation output power, high bandwidth, polarization-maintaining Booster Optical Amplifier. The BOA1036P incorporates a highly efficient InP/InGaAsP Quantum Well (QW) layer structure and a reliable ridge waveguide design. This BOA is housed in a standard 14-pin butterfly package with an integrated thermoelectric cooler (TEC) and thermistor.

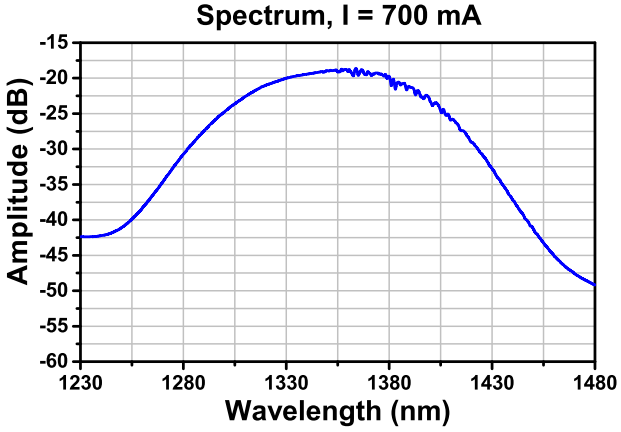
Specifications

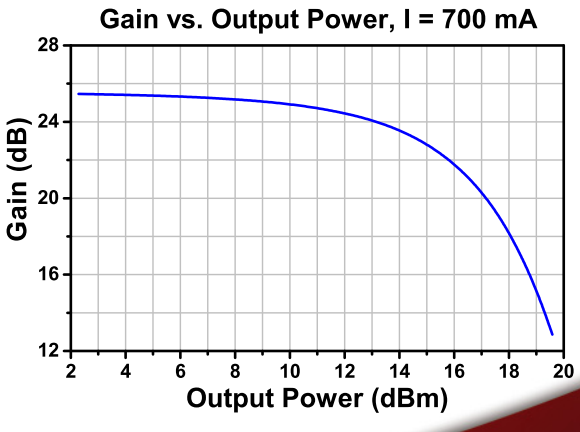
T_{CHIP} = 25 °C, T_{CASE} = 0 - 70 °C

BOA1036P				
	Symbol	Min	Typical	Max
Operating Current	I_{OP}	-	700 mA	750 mA
Center Wavelength	λ_C	1330 nm	1350 nm	1370 nm
Optical 3 dB Bandwidth	BW	65 nm	80 nm	-
Saturation Output Power @ -3 dB, λ = 1312 nm	P_{SAT}	13 dBm	15 dBm	-
Small Signal Gain @ P_{IN} = -20 dBm, λ = 1312 nm	G	20 dB	23 dB	-
Gain Ripple (RMS) @ I_{op}	ΔG	-	-	0.3 dB
Noise Figure	NF	-	8 dB	11 dB
Forward Voltage	V_F	-	1.6 V	2.0 V
TEC Operation (Typ. / Max @ T_{CASE} = 25 °C / 70 °C)				
TEC Current	I_{TEC}	-	0.4 A	1.5 A
TEC Voltage	V_{TEC}	-	0.5 V	4.0 V
Thermistor Resistance	R_{TH}	-	10 kΩ	-

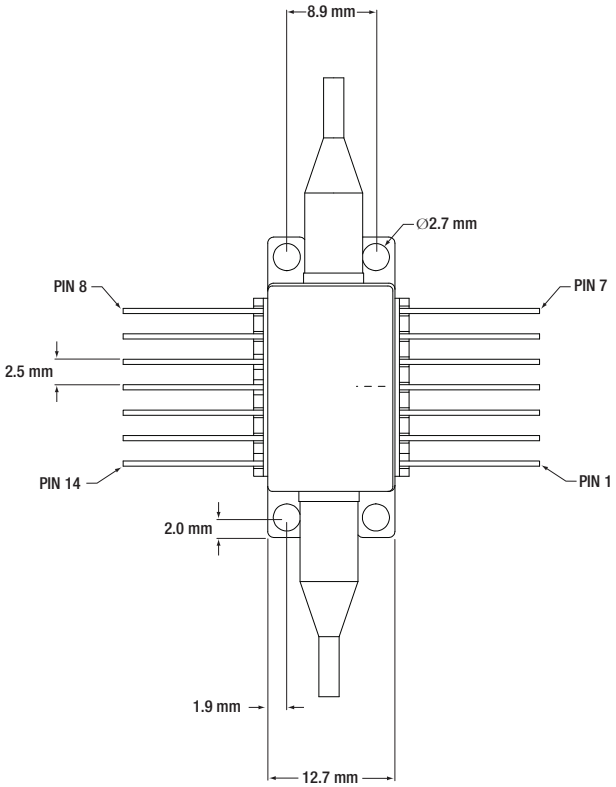
Performance Plots

Please note: the ripple on the spectrum curve below is due to water absorption during the test and not indicative of the performance of the device.





Drawings



Pin Identification

1. TEC +	8. NC
2. Thermistor	9. NC
3. NC	10. Dev Anode
4. NC	11. Dev Cathode
5. Thermistor	12. NC
6. NC	13. Case
7. NC	14. TEC -