

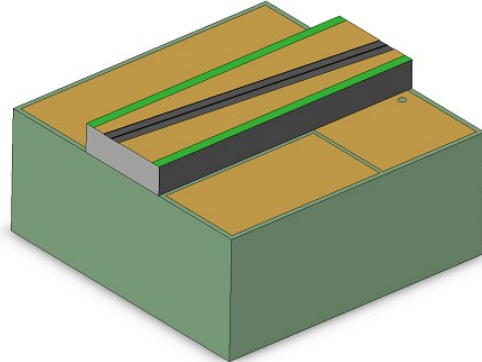
BOA 1007: C-band Booster Optical Amplifier Chip

7.1.2.SP.1007 Rev C

Description

The BOA 1007 is a high saturation output power high bandwidth polarization maintaining Booster Optical Amplifier (BOA). It incorporates a highly efficient InP/InGaAsP Quantum Well (QW) layer structure and a reliable ridge waveguide design.

Packaging options include, bare die, chip on submount and various general and custom heat sinks



Applications

- ✓ Telecom & Datacom
- ✓ Booster Amplifier of Fixed and Tunable ITU Lasers and Transmitters
- ✓ Research
- ✓ Non-Linear Applications

Features

- High Saturation Output Power
- Broad Spectral Bandwidth
- High Gain
- High Polarization Extinction Ratio

Specifications

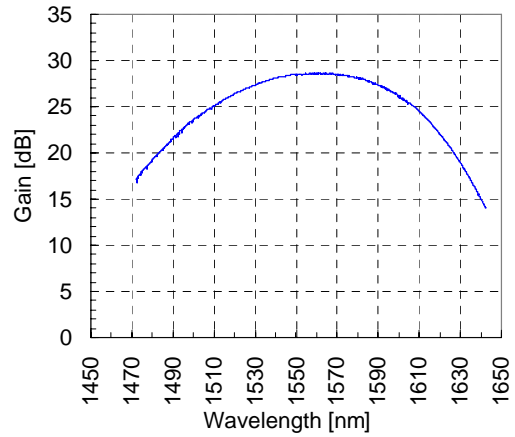
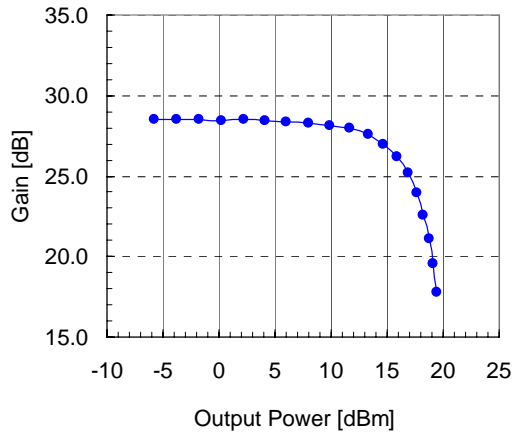
CW, T (Chip) = 25°C

Parameter		Min	Typ	Max	
Operating Current	I_{OP}		500		mA
Central Wavelength	λ_c	1530	1550	1570	nm
Optical 3 dB Bandwidth	BW	80	85		nm
Saturation Output Power @ -3 dB	P_{SAT}	15	18		dBm
Small Signal Gain across BW @ Pin = -20 dBm	G	23	28		dB
Gain Ripple (p-p) @ I_{OP}	δG		0.05	0.2	dB
Polarization Extinction Ratio	PER		18		dB
Chip Noise Figure	NF		6	8	dB
Forward Voltage	V_F		1.3	1.6	V
Chip Length	L		1.5		mm
Lateral Beam Exit Angle	θ_{EXT}		19.5		deg
Beam Divergence Angle (FWHM)					
- Transverse	θ_T	32	36	40	deg
- Lateral	θ_L	10	14	18	deg

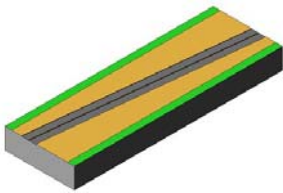
SPECIFICATIONS SUBJECTED TO CHANGE WITHOUT NOTICE

BOA 1007

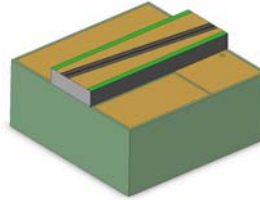
Performance



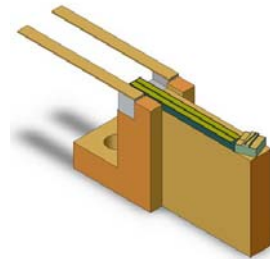
Packaging



Bare Die



Chip on Submount



Chip on Heatsink

Ordering Information

BOA 1007 - XXX	
XXX	
Submount	
DIE = Bare Die	
COS = Chip on Submount	
HTS = Heatsink	
ZZZ = Custom Mount	

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