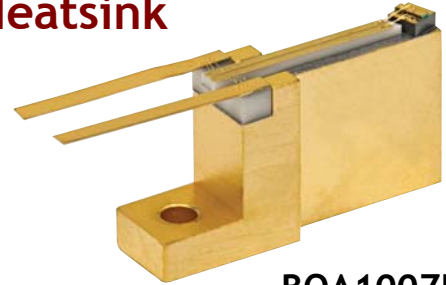


## C-Band Booster Optical Amplifier Chip on Heatsink



**BOA1007H**

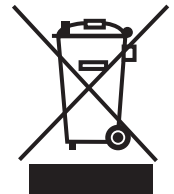
### Description

Thorlabs' BOA1007H is a high saturation output power, high bandwidth, polarization-maintaining Booster Optical Amplifier. The BOA1007H incorporates a highly efficient InP/InGaAsP Quantum Well (QW) layer structure and a reliable ridge waveguide design.

### Specifications

| BOA1007H*   |                |         |         |         |
|---|----------------|---------|---------|---------|
|   | Symbol         | Min     | Typical | Max     |
| Operating Current   | $I_{OP}$       | -       | 600 mA  | 750mA   |
| Center Wavelength   | $\lambda_C$    | 1530 nm | 1550 nm | 1570 nm |
| Optical 3 dB Bandwidth  | BW             | 80 nm   | 85 nm   | -       |
| Saturation Output Power @ -3 dB                                       | $P_{SAT}$      | 15 dBm  | 18 dBm  | -       |
| Small Signal Gain across BW @ $P_{IN} = -20$ dBm, $\lambda = 1550$ nm | G              | 26 dB   | 30 dB   | -       |
| Gain Ripple (RMS) @ $I_{op}$  | $\delta G$     | -       | 0.05 dB | 0.2 dB  |
| Polarization Extinction Ratio   | PER            | -       | 18 dB   | -       |
| Chip Noise Figure   | NF             | -       | 6.0 dB  | 8.0 dB  |
| Forward Voltage   | $V_F$          | -       | 1.3 V   | 1.6 V   |
| Chip Length   | L              | -       | 1.5 mm  | -       |
| Lateral Beam Exit Angle   | $\theta_{EXT}$ | -       | 19.5°   | -       |
| Beam Divergence Angle (FWHM)  |                |         |         |         |
| -Transverse   | $\theta_T$     | 26°     | 34°     | 42°     |
| -Lateral  | $\theta_L$     | 10°     | 14°     | 30°     |

\* $T_{CHIP} = 25^\circ C$



### Performance Plots

