Tapered Laser Utility

The Tapered Laser Utility[†] provides an efficient and accurate design tool for analyzing and optimizing tapered semiconductor laser diodes. It essentially combines, two powerful and mature simulation tools, BeamPROP and LaserMOD, to provide a full 3D simulation of tapered laser diodes. The quasi-3D electrical, quantum mechanical gain and thermal calculations are performed via LaserMOD, whereas the optical field is propagated via BeamPROP.

Benefits

▸ Leverages the power of the RSoft BeamPROP and LaserMOD simulation tools for use with tapered semiconductor laser diode applications.
▸ Fully integrated into the RSoft CAD Environment (page 6).
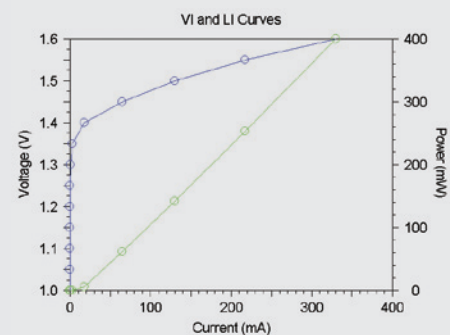
Applications

▸ Tapered laser diode design

Features

▸ Fully integrated with the RSoft Beam-PROP and LaserMOD simulation packages to automatically compute tapered laser characteristics.
▸ Self-consistent optical, electronic and thermal simulation.
▸ Extensible material libraries.
▸ Output information includes L-I curves, I-V curves, spatial field plots, farfields, etc.
▸ Capable of simulating physical effects like spatial hole burning, filamentation, over pumping, etc.
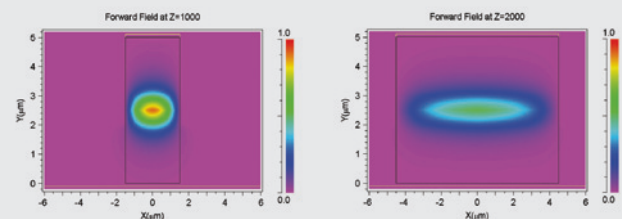
[†] The Tapered Laser Utility provides users of BeamPROP and LaserMOD the functionality described here. All simulation tools are licensed separately.

Featured Applications

Computed light-current and current-voltage characteristics.

TL Utility computed stabilized field profiles along different sections of the tapered laser

SEE PAGE 42 FOR SYSTEM REQUIREMENTS