

Abstracts

InGaAsP DC-PBH Semiconductor Laser Diode Frequency Response Model (Short Papers)

A.A.A. de Salles. "InGaAsP DC-PBH Semiconductor Laser Diode Frequency Response Model (Short Papers)." 1990 *Transactions on Microwave Theory and Techniques* 38.5 (May 1990 [T-MTT] (Special Issue on Applications of Lightwave Technology to Microwave Devices, Circuits, and Systems)): 677-679.

A simple and accurate model for the frequency response of InGaAsP double-channel planar buried heterostructure semiconductor laser diodes intensity modulated in the microwave range is presented. It is shown that the parasitic capacitance associated with the reverse-biased blocking junction can significantly reduce the 3 dB modulation bandwidth. The results obtained and alternatives to improve the high-frequency performance are discussed and compared to experiments.

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