

VD laser diode



Overview

Unlike a regular diode, the goal for a laser diode is to recombine all carriers in the I region, and produce light. Thus, laser diodes are fabricated using direct band-gap semiconductors. Component type, Working principle, Inventor, 1962; , 1962 Pin names and Overview A laser diode (LD, also injection laser diode or ILD or semiconductor laser or diode laser) is a device similar to a diode in which a diode pumped directly with electrical current can create light. A laser diode is electrically a diode. The active region of the laser diode is in the intrinsic (I) region, and the carriers (electrons and holes) are pumped into that region from the N and P regions respectively. Following theoretical treatments of M.G. Bernard, G. Duraffourg, and William P. Dumke in the early 1960s, light emission from a (GaAs) semiconductor diode (a laser diode) was demonstrated. The simple laser diode structure described above is inefficient. Such devices require so much power that they can only achieve pulsed operation without damage. Although historically important and easy to explain, such device.

Article Content

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Laser Diode Specifications & Characteristics Explained

Understand laser diode specifications and characteristics and how they relate to real circuits and applications with tips on the precautions that need to be considered.

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VD-0940P-100W-XX-3A0 VCSEL Diode

This VD can be only used in constant voltage and current. Operating voltage and current, refer to the table in paragraph II. Please do not aim the laser to people or animal. You can observe the laser spot ...

Laser diode

Unlike a regular diode, the goal for a laser diode is to recombine all carriers in the I region, and produce light. Thus, laser diodes are fabricated using direct band-gap semiconductors.

Laser Diode Tutorial

Laser Diode Tutorial The purpose of this laser diode tutorial is to provide the information necessary to create a long lifetime, stable laser diode system. Much of what will be discussed will be in general ...

Diode Lasers: Definition, How They Work, Types, Applications

What Is the Difference Between a Diode-Pumped Solid-State Laser and a Diode Laser? A diode-pumped solid-state laser uses a diode to pump energy into a crystal or glass medium that ...

Laser Diode Characteristics, Precautions for Use and Drive Circuit ...

Laser diodes (LD) are semiconductor devices that convert electrical energy into high-power optical energy. These devices are currently used in the fields of telecommunications and ...

Laser Diode

Introducing product information page for Laser Diode and its overview, features, and application examples.

Contact Us

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