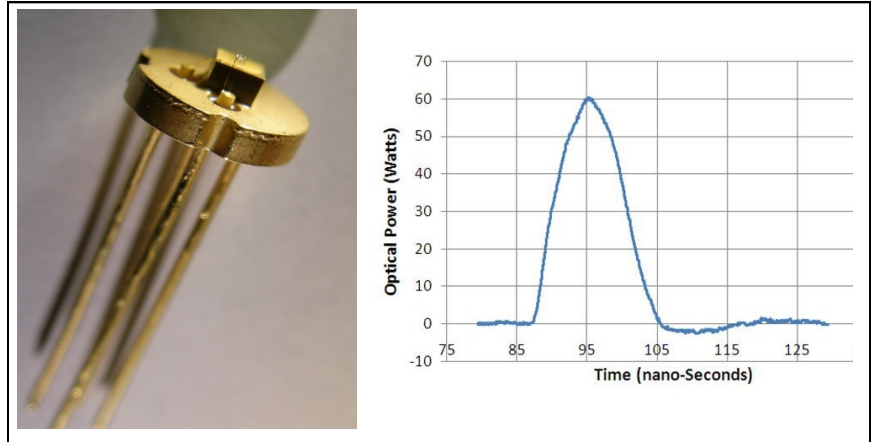


VPOWER

NIR VCSEL Series

The Aerius VPOWER line of high peak power InGaAs/GaAs Vertical-Cavity Surface-Emitting Lasers (VCSEL) is capable of over 50W peak output power in 20 ns pulses from a single device (~300mW average power output), making it an ideal candidate for laser rangefinding applications. Aerius delivers bare die, packaged single devices or packaged arrays based upon the customer's desired form factor. Typical characteristics are shown below.

High Peak Power Pulsed Multiple Transverse Mode Surface Emitting Laser for laser rangefinders



VCSEL Products

- **Prototype lasers and laser arrays (packaged)**
- **Bare die for direct mounting to PCB**

Parameter	Typical Value
Peak Output Power	> 50W, Typical: 60W
Average Output Power	Up to 300mW
Threshold Current	300mA
Diameter (round aperture)	50, 60, 100, 150, 200, and 250 microns available
Divergence, symmetric axis	10° FWHM
Slope Efficiency	2.1 W/A
Wavelength, thermal shift	940 nm, 0.08nm/°C

Features

- **Peak power output >50W (Average Output Power ~300mW)**
- **Pulse widths 1-200ns**
- **Low-divergence, symmetric multiple transverse mode beam for enhanced eye-safety**
- **75% less wavelength drift with temperature: 0.08nm/°C**
- **Compare to -**
 - ◆ Osram: SPL DL90_3
 - ◆ PerkinElmer: TPGAS1S09
 - ◆ Laser Comp: 905D1S3J06U

Aerius Photonics

is a leading designer and seller of highly-efficient semiconductor lasers, very-sensitive photo detectors and from these, highly-integrated sub-systems.

Other Aerius Products

- **High-Power pulsed and continuous VCSELs**
- **Miniature laser range-finders and altimeters**
- **NIR / SWIR laser illuminators**
- **Multi-spectral thermal scene projectors**
- **SWIR camera sensors**
- **Infrared detectors and focal plane arrays**

Preliminary Datasheet—Specifications may change at any time without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use. March 2010.