# **OSI** LaserDiode, Inc.

An OSI Systems Company

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# www.laserdiode.com

# Hybrid Laser Diodes for Pulsed Operations

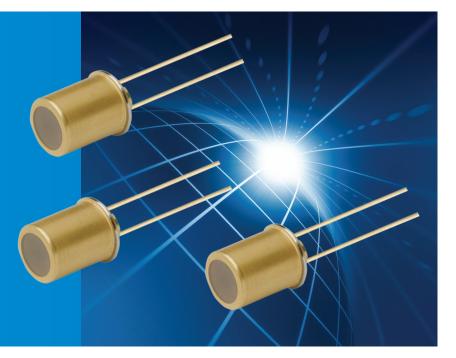
ISO 9001:2008 Certified

High Efficiency
High Peak Power Emission
905nm Peak Emission Wavelength
Low Voltage Operation
(100V Maximum)

## **Applications:**

**RoHS Compliant** 

- Rangefinders
- Ceilometers
- Weapons Simulation
- Surveying
- LIDAR



The LHCVN series incorporates a pulsed laser firing circuit into the same package as the laser diode. The hybridization of the driver permits much narrower pulse widths and faster rise times at lower voltage requirements than discrete laser drivers. The LHCVN series is compatible with all OSI LaserDiode, Inc standard MOCVD laser diodes and can be optimally driven utilizing commercially available MOSFET drivers. The hermetic TO5 package and increased efficiency is ideal when space and weight are of primary concern.

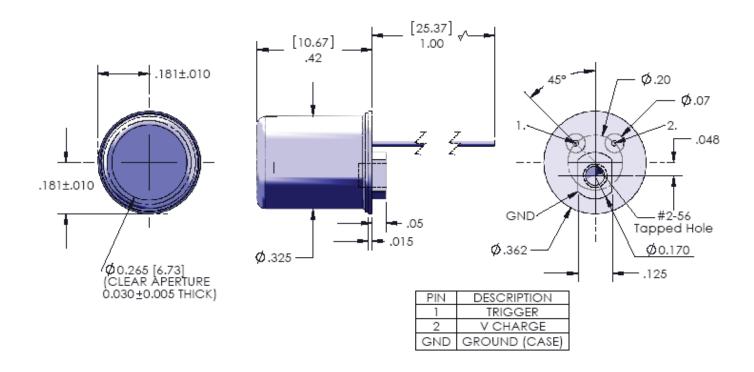
#### LHCVN Series Test Conditions: Rep. Rate = 1kHz, 25°C

Parameters	LHCVN63-10	LHCVN5S63-10	LHCVN5S63-30	Units
Number of Diodes	1	5	5	
Power (Min)	20	200	350	W
Pulse Width (Typical)	10	10	30	ns
Emitter Area	200 X 10	200 X 480	200 X 480	um
Rise/Fall Times (Typical)	2	2	2	ns
Operating Voltage (Typical)	40	100	100	V

#### LHCVN Series Specifications and Limits @ 25°C

Parameters		Symbol	Min	Тур	Max	Units
Wavelength		λ	895	905	915	nm
Spectral Width	FWHM	Δλ		5	12	nm
Beam Spread - LHCVN	<b>FWHM</b>			9 x 25		degrees
Operating Temperature		T <sub>op</sub>	0		70	°C
Storage Temperature		T <sub>Stg</sub>	0		75	°C

### **Package Drawing**



Package is subject to change depending on required internal components to achieve specified parameters. Dimensions: inches [mm]

Note: To obtain optimum laser performance the use of a MOSFET Driver to trigger the hybrid is recommended.

### **Ordering Information**

Products can be ordered directly from OSI Laser Diode Inc. or its representatives.

For a complete listing of representatives, visit our website at

www.laserdiode.com

Handle diode lasers with extreme care to

precautions when handling devices.

prevent electrostatic discharge. Follow ESD

**ESD Caution:** 

#### Safety:

Caution: Laser light emitted from any diode laser may be harmful to the human eye. Avoid looking directly into the diode laser aperture when the device is in operation.

#### Class 3B laser

#### Notice:

Notice.
OSI Laser Diode Inc. reserves the right to make changes to the products or information contained herein without notice.
No liability is assumed as a result of their use or application.

#### Warranty:

Please refer to your product purchase agreement for complete details or check with your OSI Laser Diode sales representative.