

# OSI LaserDiode, Inc.

An OSI Systems Company

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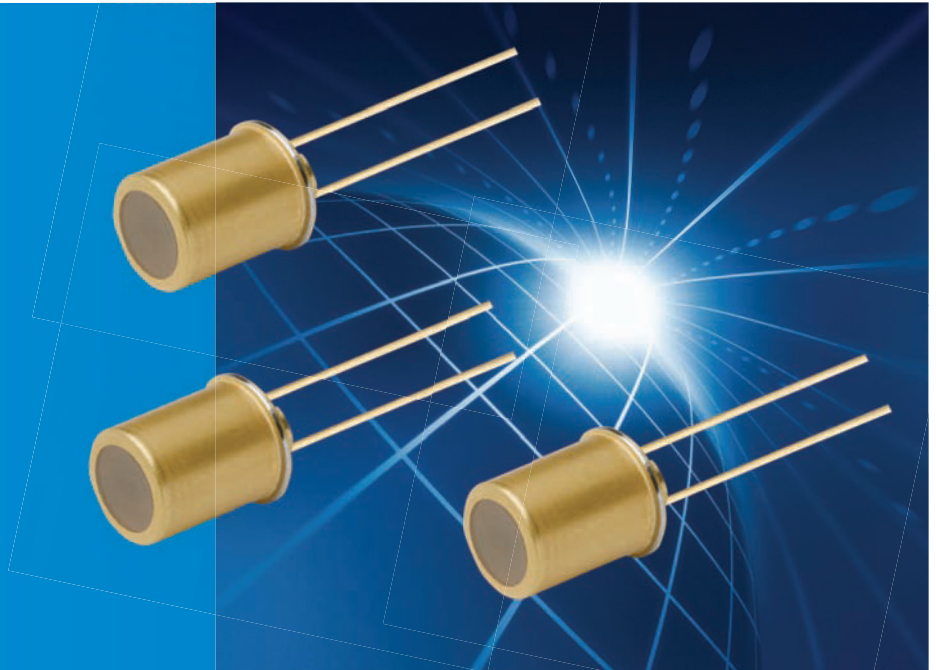
## Hybrid Laser Diodes for Pulsed Operations

ISO 9001:2008 Certified

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

### Applications:

- 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

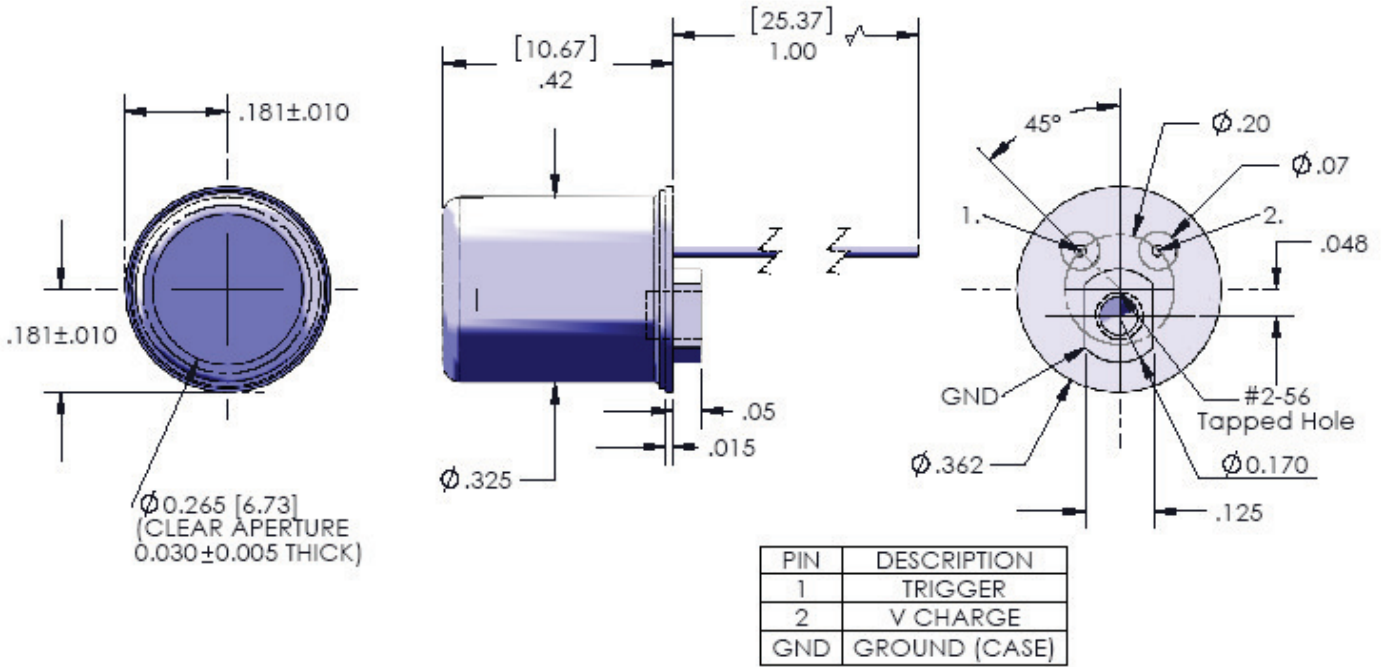
Parameters	LHCVN63-10	LHCVN5S63-10	LHCVN5S63-30	Units
Number of Diodes	1	5	5	
Power (Min)	20	200	350	W
Pulse Width (Typical)	10	10	30	ns
Emitter Area	200 X 10	200 X 480	200 X 480	um
Rise/Fall Times (Typical)	2	2	2	ns
Operating Voltage (Typical)	40	100	100	V

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

Parameters	Symbol	Min	Typ	Max	Units
Wavelength	$\lambda$	895	905	915	nm
Spectral Width	FWHM $\Delta\lambda$		5	12	nm
Beam Spread - LHCVN	FWHM		9 x 25		degrees
Operating Temperature	$T_{op}$	0		70	°C
Storage Temperature	$T_{Stg}$	0		75	°C

# TO5 (Hermetic) Package

## 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](http://www.laserdiode.com)

**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:**  
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.

**ESD Caution:**  
Handle diode lasers with extreme care to prevent electrostatic discharge. Follow ESD precautions when handling devices.

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