

## High Power Monolithic Stack Pulsed Laser Diodes

High Reliability/High Efficiency  
Stable Output from -40°C to +85°C  
Single & Stacked Devices up to 450W  
Fiber Coupled Devices up to 225W  
Custom Packaging Available

### Applications:

- Rangefinding
- Ceilometers
- Weapons Simulation
- Surveying Equipment
- Homeland Security
- LIDAR
- Adaptive Cruise Control



### CVN Series

Drive Conditions: 100ns 30Amps 1kHz @ 25°C

PARAMETERS	Symbol	Min	Typ	Max	Units
Peak Wavelength	$\lambda$	893	903	913	nm
Spectral Width (FWHM)	$\Delta\lambda$		8		nm
Rise Time	$T_r$		1		ns
Beam Spread (FWHM)			8 x 25		Degrees
Duty Cycle	DC			0.1	Percent
Operating Temperature	$T_{op}$	-40		85	°C
Storage Temperature	$T_{stg}$	-40		85	°C

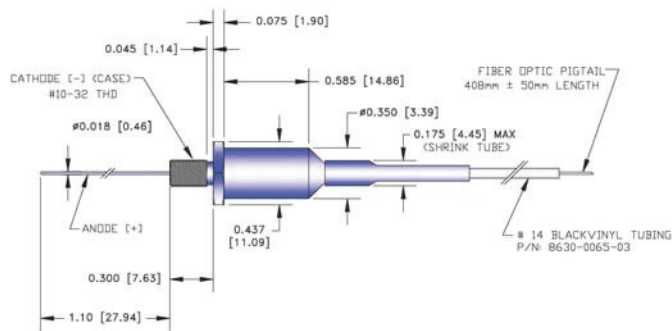
PARAMETERS	Symbol	CVN 63	CVN 2S63	CVN 3S63	CVN 4S63	CVN 5S63	Units
Threshold Current (typ)	$I_{th}$	0.8	0.8	0.8	0.8	0.8	A
Peak Forward Current	$I_f$	30	30	30	30	30	A
Peak Power 25°C (min/ typ)	$P_o$	75/ 87	150/ 175	225/ 262	300/ 350	375/ 437	W
Peak Power 85°C (min/ typ)	$P_o$	65/ 77	129/ 154	193/ 230	257/ 307	321/ 383	W
Emitting Area		220 x 10	220 x 120	220 x 240	220 x 360	220 x 480	Microns
Fiber Core Diameter*		200	300	300	400	600	Microns
Power from Fiber (typ)	$P_f$	45	90	135	180	225	W

**Notes:** All devices supplied case (-) unless otherwise specified.

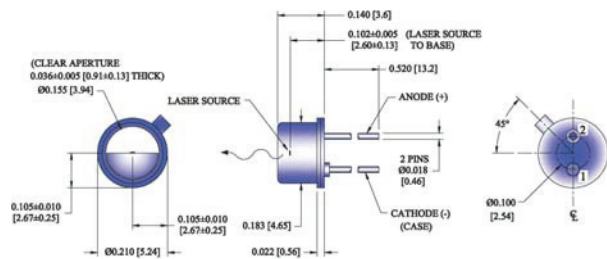
\*Note: Other fiber sizes are available

## Package Drawings

## T05F (Non-Hermetic) Package

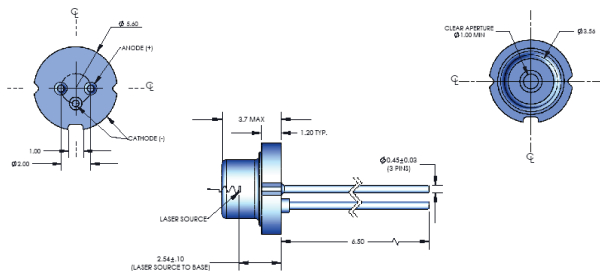


## T018T Package



Other package options available. Dimensions: inches [mm]

## 5.6 Package



Available with Single Chip Only

## Ordering Information

When ordering, refer to the numbering diagram below.

**CVN**

XS

63

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XXX

## #Stacked

2

3

4

5

## Package

$$T_{05C} = Coax$$
$$T_{O5T} = T_{win}$$

T05F = Fibered

$$T_{018C} = C_{oax}$$

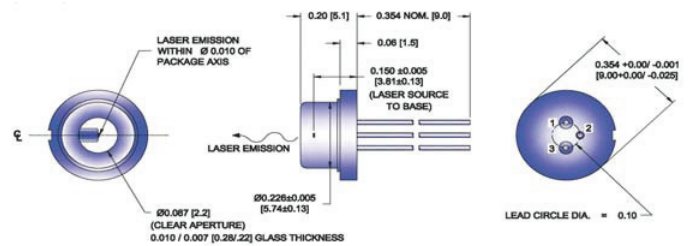
$T_{018T} = T_{\text{twin}}$

TO18F = Fibered

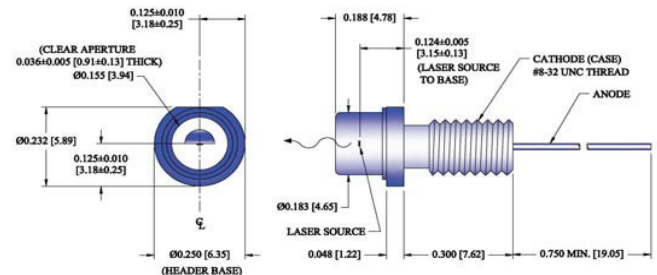
90 = 9mm

## 9 mm Package

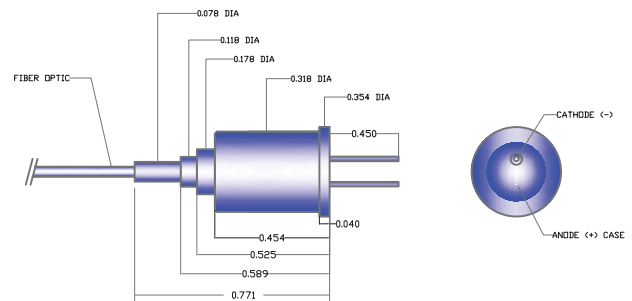
PINOUT		
PIN 1	PIN 2 (Case)	PIN 3
Laser Anode ( + )	Laser Cathode ( - )	No Connection



## T018C Package



## T018F Package



**Note:** Fiber length is 1 meter +/- 0.1 meter unless otherwise noted.  
Output is typically 50% of rated power for fibered products.

**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.