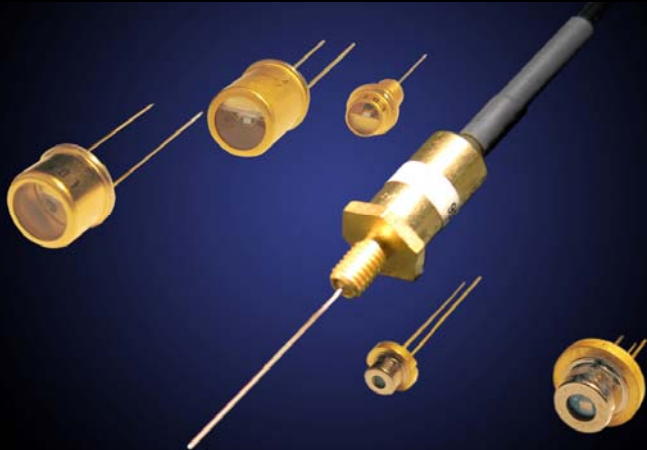


# High Power Pulsed Laser Diodes



High Efficiency / High Reliability  
 Stable output from -40°C to +85°C  
 Single and stacked devices up to 140Watts  
 850nm and 905nm wavelengths  
 Hermetic package

Applications:

- Rangefinding / Ceilometers
- Weapons simulation
- Optical fuses
- Surveying equipment

## CVD Series Characteristics @ 25°C

Parameter	Symbol	Min	Typ	Max	Unit
Peak Wavelength	$\lambda$				nm
CVD 60 / 160 Series		895	905	915	nm
CVD 90 / 190 Series		840	850	860	nm
Spectral Width	$\Delta\lambda$		5.0	12	nm
Rise Time - Lasers	$T_r$		1		ns
Pulse Width = 50% pts	$T_{pw}$		100	200	ns
Beam Spread	FWHM		10 x 35		degrees
Storage Temperature	$T_s$	-55		+85	°C
Operating Temperature	$T_o$	-40		+85	°C

## CVD 905nm Series Test Conditions: 100ns, 1Khz, 25°C

Parameters	CVD 46	CVD 60	CVD 62	CVD 65	CVD 68	CVD 163	CVD 167	Units
Peak Power	3	4	8	13	22	35	100	Watts
Number of Diodes	1	1	1	1	1	3	5	
Emitting Area Typical	62 x 2	76 x 2	152 x 2	254 x 2	381 x 2	254 x 203	381 x 406	um
Peak If	4	5	10	15	25	15	25	Amps
Duty Factor (max) <sup>1</sup>	0.1	0.1	0.1	0.1	0.1	0.08	0.04	%

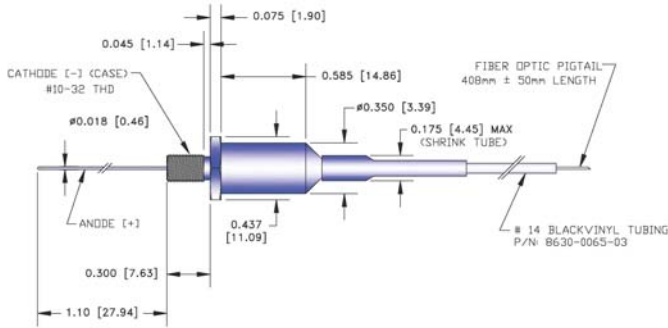
## CVD 850nm Series Test Conditions: 100ns, 1Khz, 25°C

Parameters	CVD 90	CVD 93	CVD 95	CVD 97	CVD 193	CVD 195	CVD 197	Units
Peak Power	5	10	15	25	40	60	100	Watts
Number of Diodes	1	1	1	1	3	3	5	
Emitting Area Typical	76 x 2	152 x 2	254 x 2	381 x 2	254 x 203	381 x 203	381 x 406	um
Peak If	7	14	20	30	20	30	30	Amps
Duty Factor (max) <sup>1</sup>	0.1	0.1	0.1	0.1	0.08	0.04	0.04	%

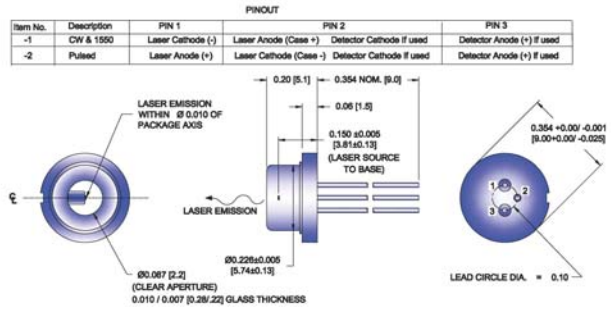
**Note:** 1 Heat sinking required

## Package Drawings

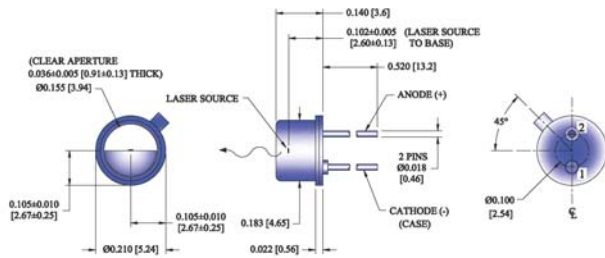
### TO5F (Non-Hermetic) Package



### 9mm Package

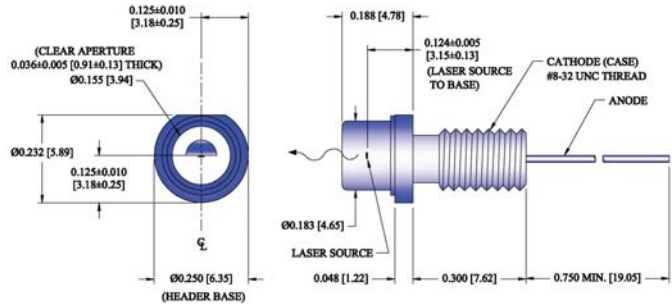


### TO18T Package



Other package options available. Dimensions: inches [mm]

### TO18C Package



## Ordering Information

Products can be ordered directly from Laser Diode Incorporated or its representatives. When ordering, refer to the information below. For a complete listing of representatives, visit our website at [www.laserdiode.com](http://www.laserdiode.com)

CVD	XX - XXXX
<b>OUTPUT POWER</b>	
46 =	3 Watt
60 =	4 Watt
62 =	8 Watt
65 =	13 Watt
68 =	22 Watt
163 =	35 Watt
167 =	100 Watt
90 =	5 Watt
93 =	10 Watt
95 =	15 Watt
97 =	25 Watt
193 =	40 Watt
195 =	60 Watt
197 =	100 Watt
	<b>PACKAGE</b>
	TO18C = TO18 Coax
	TO18T = TO18 Twin Lead
	TO5C = TO5 Coax
	TO5F = TO5 Non-Hermetic (fibered)
	TO5T = TO5 Twin Lead
	90 = 9mm

**NOTE:** Not all options are available for all packages. Other power options are available. Fiber pigtailed versions of all lasers are available. Output is typically 50% of rated power.

#### 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**

#### 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 Laser Diode sales representative.

#### Notice:

LDI 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.