OSI LaserDiode, Inc.
An OSI Systems Company

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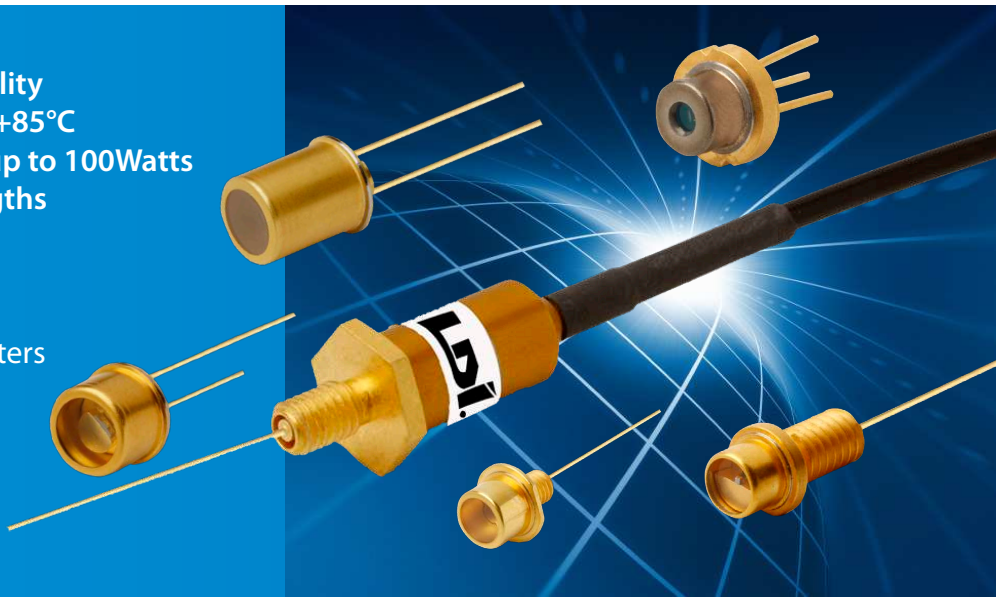
High Power Pulsed Laser Diodes

ISO 9001:2008 Certified

- **High Efficiency / High Reliability**
- **Stable Output from -40°C to +85°C**
- **Single and Stacked Devices up to 100Watts**
- **850nm and 905nm Wavelengths**
- **Hermetic Package**

- **Applications:**
  - Rangefinding / Ceilometers
  - Weapons Simulation
  - Optical Fuses
  - Surveying Equipment



CVD Series Characteristics @ 25°C

Parameters	Symbol	Min	Typ	Max	Units
Peak Wavelength	λ				nm
CVD 60 / 160 Series		895	905	915	nm
CVD 90 / 190 Series		840	850	860	nm
Spectral Width	Δλ		5.0	12	nm
Rise Time - Lasers	T_r		1		ns
Pulse Width = 50% pts	T_{pw}		100	200	ns
Beam Spread	FWHM		10 x35		degrees
Operating Temperature	T_{op}	-40		85	°C
Storage Temperature	T_{stg}	-55		85	°C

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

Parameters	CVD 40	CVD 46	CVD 60	CVD 62	CVD 65	CVD 68	CVD 163	CVD 167	Units
Peak Power	2	3	4	8	13	22	35	100	Watts
Number of Diodes	1	1	1	1	1	1	3	5	
Emitting Area Typical	40 x 1	62 x 1	76 x 1	152 x 1	254 x 1	381 x 1	254 x 203	381 x 406	um
Peak If	2.6	4	5	10	15	25	15	25	Amps
Duty Factor (max)	0.1	0.1	0.1	0.1	0.1	0.1	0.08	0.04	%

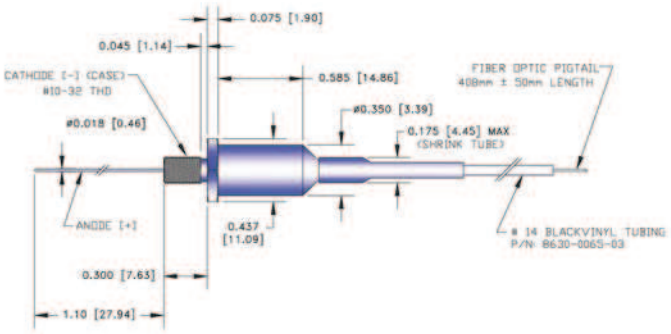
CVD 850nm Test Conditions: 100ns, 1 kHz, 25°C

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 1	152 x 1	254 x 1	381 x 1	254 x 203	381 x 203	381 x 406	um
Duty Factor (max)	0.1	0.1	0.1	0.1	0.08	0.04	0.04	%

Note: All devices are supplied case (-), unless otherwise specified.

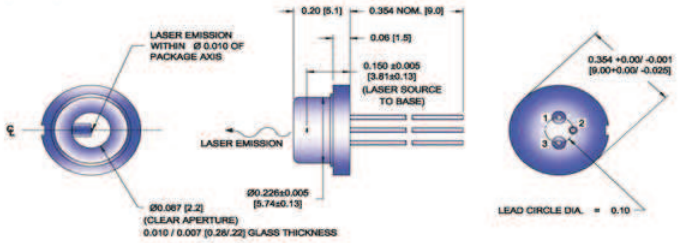
Package Drawings

TO5F (Non-Hermetic) Package

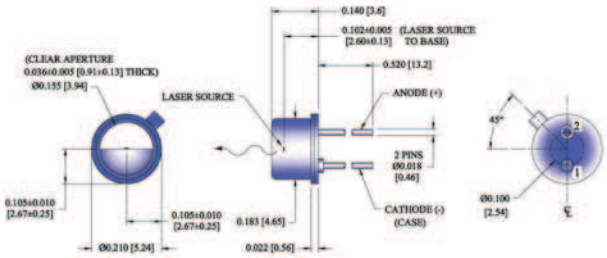


9 mm Package

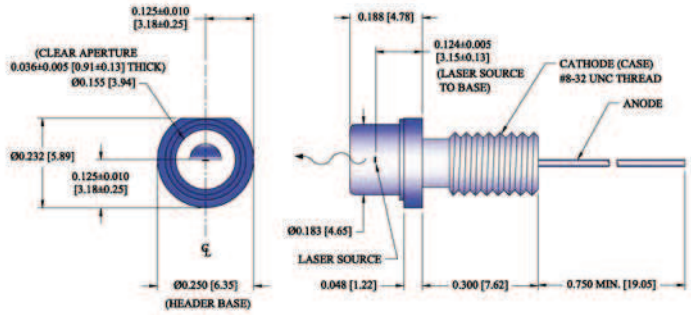
PINOUT		
PIN 1	PIN 2	PIN 3
Laser Anode (+)	Laser Cathode (-)	No Connection



TO18T Package

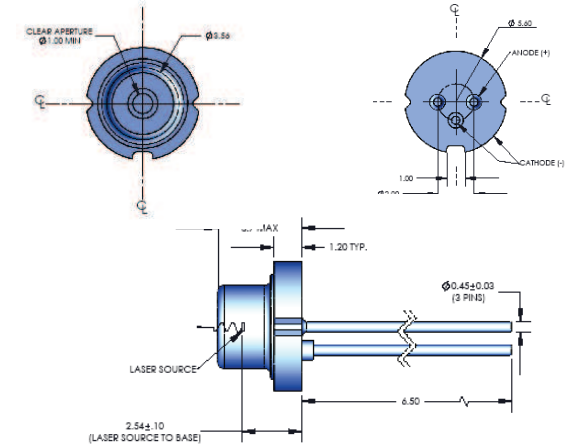


TO18C Package



5.6mm Package

Note: Available with Single Chip Only



Other package options available. Dimensions: inches [mm]

Ordering Information

When ordering, refer to the information below.

CVD XX - XXXX

OUTPUT POWER

905 nm
- 40 = 2 Watt
- 46 = 3 Watt
- 60 = 4 Watt
- 62 = 8 Watt
- 65 = 13 Watt
- 68 = 22 Watt
- 163 = 35 Watt
- 167 = 100 Watt

850 nm
- 90 = 5 Watt
- 93 = 10 Watt
- 95 = 15 Watt
- 97 = 25 Watt
- 193 = 40 Watt
- 195 = 60 Watt
- 197 = 100 Watt

PACKAGE
- TO18C = TO18 Coax
- TO18T = TO18 Twin Lead
- TO5C = TO5 Coax
- TO5F = TO5 Non-Hermetic (fibered)
- TO5T = TO5 Twin Lead
- 90 = 9mm

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

Note:
Not all options are available for all packages.
Other power options are available.
Fiber pigtailed versions of all lasers are available.
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

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.

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.