

PD-LD Inc. offers a variety of packaging options for its' Visible Series of laser diodes. These units are available in ready-to-use, fiber-coupled packages, including FC, ST, and SC receptacles, as well as fiber-pigtailed units.

The laser diodes offered by PD-LD are of proven design and manufacture; the standard wavelengths are centered at 630nm, 650nm and 670nm. Fiber-coupled CW (continuous-wavelength) output powers range from 0.1 - 10 mW, depending on the fiber type and desired performance level. Devices may be optimized for coupling to sensor or telecommunication size optical fiber, from 3um to 200um core.

Optional board- or panel-mount flanges are available for pigtailed devices; contact PD-LD Sales. Also, PD-LD Inc. will package non-standard lasers or parts specified by a customer using standard or custom receptacle or pigtailling techniques. In many cases several different pin-out options are available for similar wavelength lasers.



Applications

- Fiber optic communications
- Optical Sensing
- Process Control
- Test and Measurement Equipment
- Optical Alignment Systems

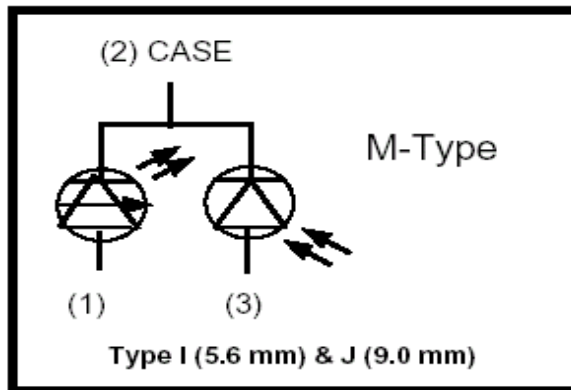
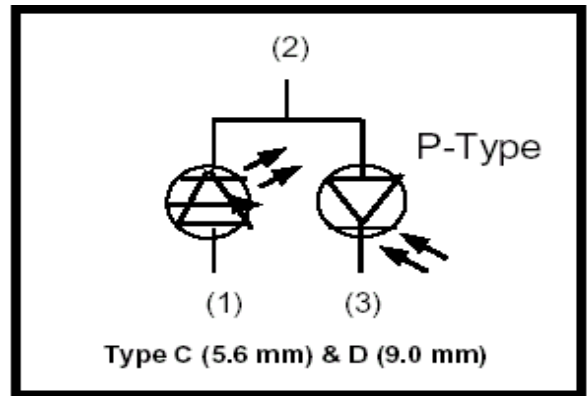
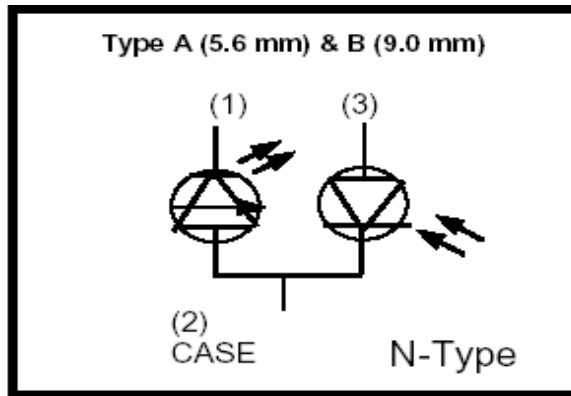
Fiber Size and Coupling Efficiency

- 3/125um 8~10%
- 5/125um 10~15%
- 9/125um 15~20%
- 50/125um 25~30%
- 62.5/125um 30~40%

PD-LD Part No. ¹	Wavelength (nm)			Min. Fiber Coupled Power (mW)	Threshold Current (mA)		Operating Current (mA)		Monitor PD Current (mA)	
	Min.	Typ.	Max.		Typ.	Max.	Typ.	Max.	Min.	Typ.
Continuous Wavelength Lasers @ 25C										
PL63A001FC11-T-0	630	635	640	1mW Into 9/125 SMF	30	50	40	60	0.02	0.07
PL63C005100A-0-0-01	625	635	640	5mW into 9/125 SMF	50	75	70	95	0.05	0.17
PL63K002FC26-T-0	630	636	642	2mW Into 3/125um SMF	60	70	87	105	0.03	0.50
PL63H003300A-0-0-01	625	635	640	3mW 62.5/125 MMF	45	70	55	85	0.2	0.4
PL63E001FC21-T-0	630	637	640	1mW 9/125um SMF	15	20	20	25	0.1	0.5
PL63F0152FCA-0-0-01	636	639	644	15mW 50/125um MMF	50	70	100	120	0.1	0.7
PL65T0.8UN11-T-0	640	650	660	0.8 mW into 9/125 SMF	15	20	20	22	0.05	0.3
PL66A005FC26-T-0	662	664	666	5mW 3/125 SMF	60	75	120	140	0.2	0.9
PL67A0026FAA-0-0-01	660	670	680	2mw 3/125um SMF	20	40	40	80	0.1	0.5
PL66N0026FCA-0-0-01	645	658	666	2.0 mW into 3/125 SMF	45	70	85	120	0.05	0.3
PL66N005FC11-S-0	645	658	666	5 mW into 9/125 SMF	45	70	85	120	0.05	0.3

¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 7-13 Visible Series. Rev.H

Laser Diode Pin-Out Styles



Pin Connection

A & B: N-Type = LD (+) Anode & PD (-) Cathode Case Common
C & D: P-Type = LD (-) Cathode & PD (+) Anode Case Common
I & J: M-Type = LD (-) Cathode & PD (-) Cathode Case Common

Ordering Information

Lasers Pigtailed

PLWWWPPPFCCB-0-V-LL

L = Laser
WWW=Wavelength and Pin-out
 630nm: 63A,63C, 63K, 63E, 63F, 63H
 655nm:65A,65P, 65T, 65V, 66N
 664nm: 66A
 670nm: 67A, 67T
 690nm: 67G

Laser Receptacle

PLWWWPPPRRRF-O-V

PPP = Fiber-Coupled Power
 0.1 = 0.10 mW (100 μW) 0.8 = 0.8 mW (800 μW)
 0.2 = 0.20 mW (200 μW) 001 = 1.0 mW
 0.5 = 0.5 mW (500 μW) 002 = 2.0 mW

F = Fiber Type	B = Bracket Type	RRR=Receptacle Type	O=Orientation
1 = 9/125 SMF	A = None	FC1=FC Panel mount	0=N/A
2 = 50/125 MMF	B = Panel Mount(9mm)	FC2=FC Board mount	A=Bracket Shipped Loose (pigtailed unit)
3 = 62.5/125 MMF	D = Board Mount(5.6mm)	SC1=SC Panel mount only	Specify orientation as required
4 = 100/140 MMF	E = Panel Mount(5.6mm)	SC2=SC Panel/board mount	
6 = 3/125 SMF		ST7=ST low profile	V=Version
7 = 5/125 SMF		ST8=ST high profile	0=Standard
8 = 7/125 SMF			Unique Codes for specific requirements
A = 200/240 MMF			
PM Fiber available on request			
LL = Length in meters (01,02,.5 ect.) (pigtailed devices only)			
CC = Connector Type (pigtailed devices only)			
ST = ST/PC SC = SCPC SA=SC/APC	FC = FC/PC	FA = FC/APC	FU = FC/UPC
TA = ST/APC SM = SMA 905	BC = Biconic	LA= LC/APC	LC= LC/PC
			OO = None

¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 7-13 Visible Series. Rev.H

Visible Laser Diodes Available from Stock

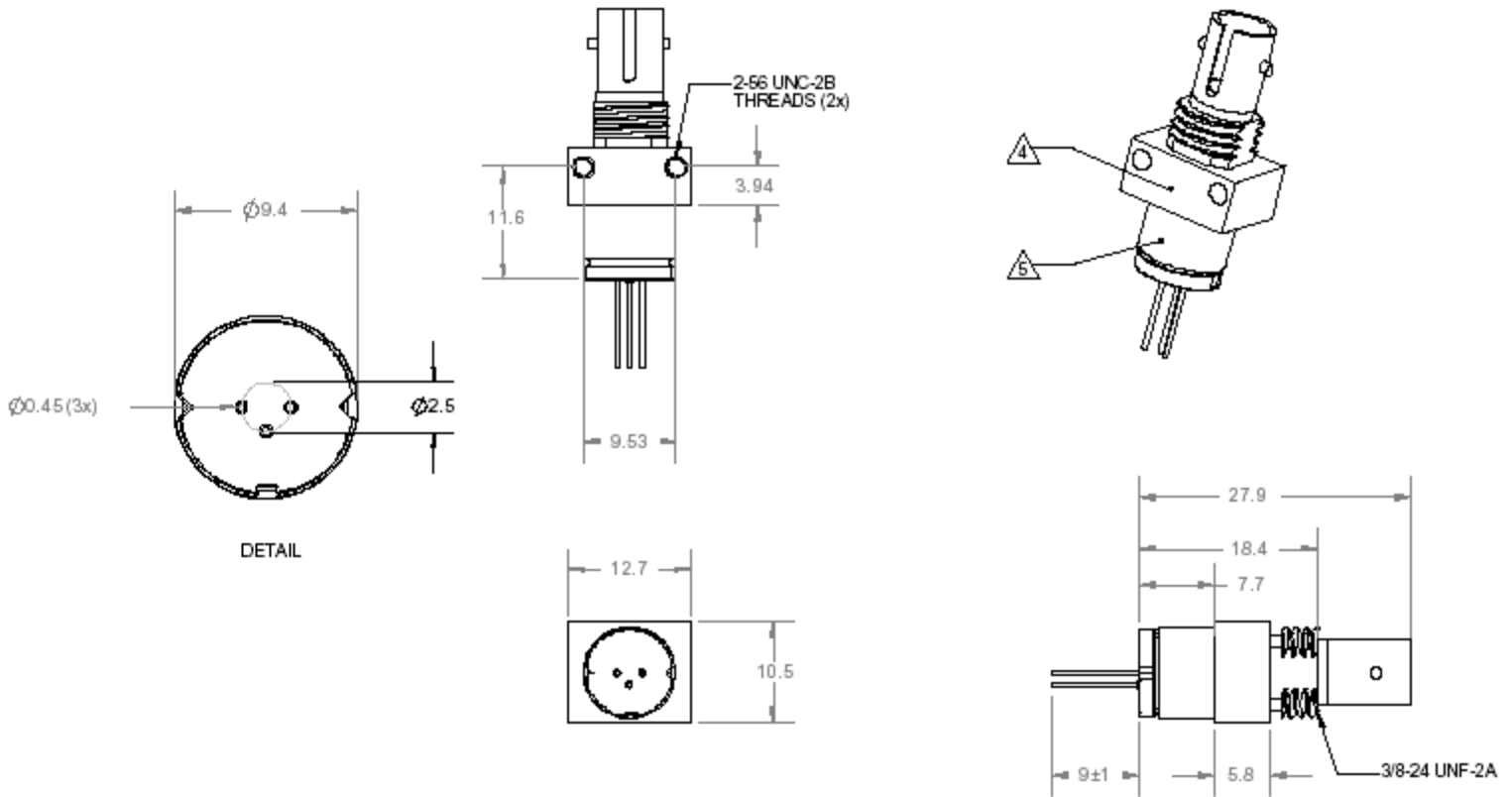
PD-LD Laser Code	Nominal Wavelength (nm)	TO Package Size	Laser Pinning	Maximum Total Power (mW)*
63A	635nm +/-5nm	5.6mm	N	5.0
63C	635nm -10/+5nm	9.0mm	N	10.0
63K	636nm +/-6nm	5.6mm	N	20.0
63E	637nm+3/-7nm	5.6mm	N	5.0
63F	639nm+5/-3nm	5.6mm	N	30.0
63H	633nm+/-8nm	9.0mm	N	5.0
65A	655nm+/-5nm	5.6mm	P	7.0
65P	655nm+/-10nm	5.6mm	P	7.0
65T	650nm+/-10nm	5.6mm	N	5.0
65V	655nm +5/-10nm	5.6mm	P	5.0
66A	664nm +/-2nm	5.6mm	N	60.0
66N	658nm+7nm/-13nm	5.6mm	P	35.0
67A	670nm+/-10nm	5.6mm	N	10.0
67G	690nm+5/-10nm	5.6mm	P	30.0
67T	670nm+/-10nm	5.6mm	N	12.0

* The power listed is the total light output from the semiconductor laser chip as measured from the discreet TO package. The amount of light coupled into the optical fiber will be dependent on the fiber type.

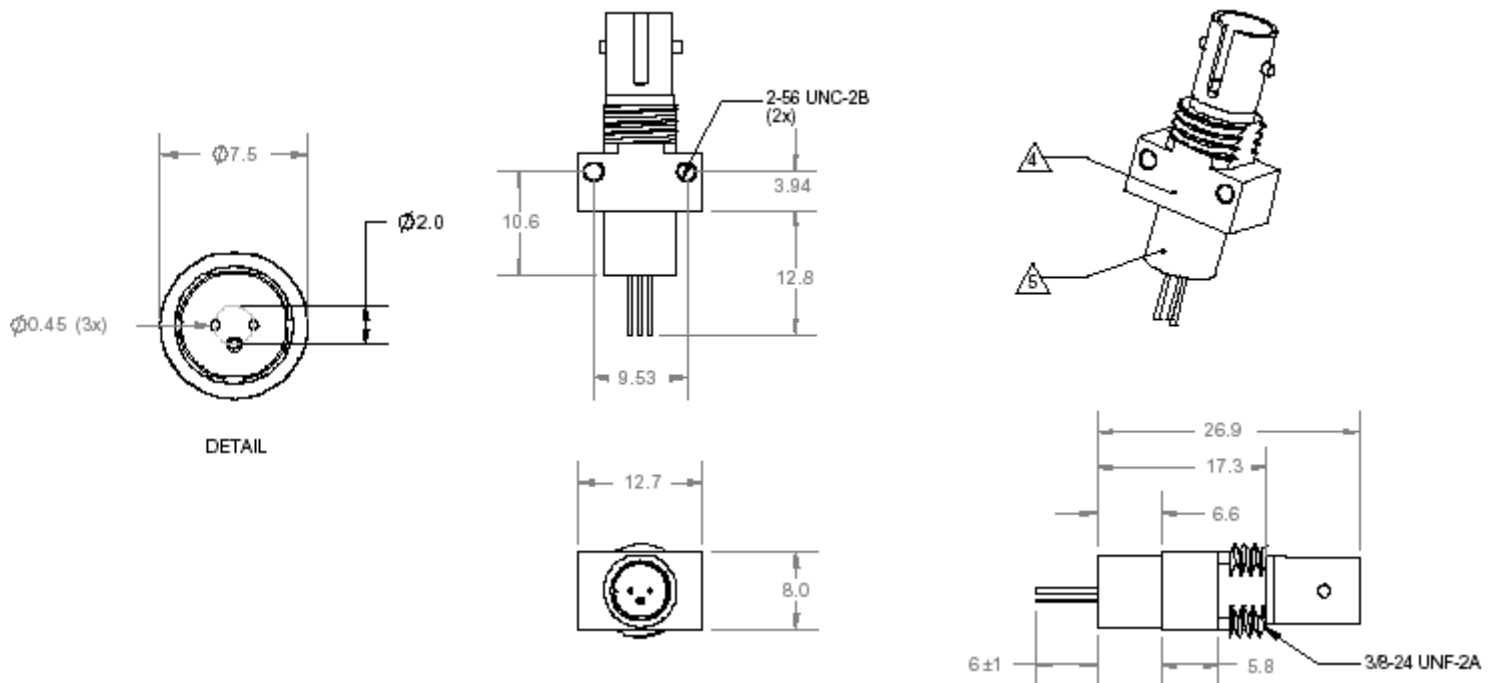
Please contact PD-LD Sales to discuss wavelength, pinning and power requirements not listed above.

¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 7-13 Visible Series. Rev.H

9mm Diameter Laser Mounted in High Profile ST8 Receptacle

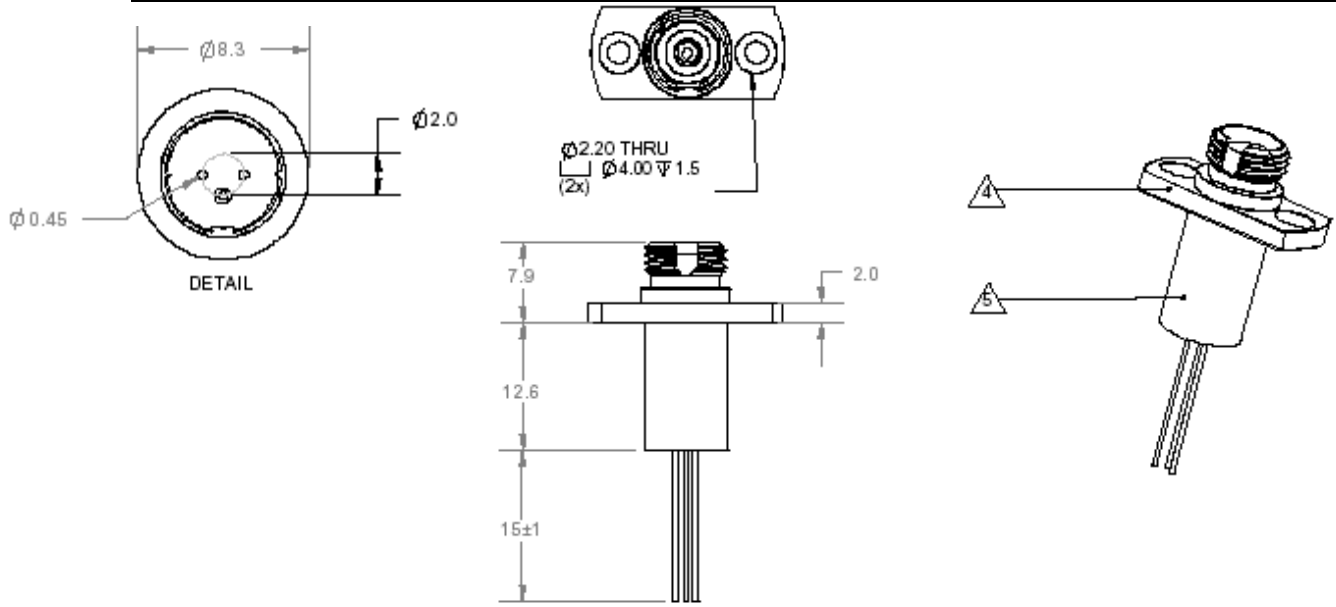


5.6mm Diameter Laser Mounted in Low Profile ST7 Receptacle

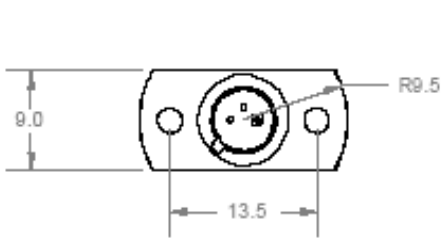


¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 7-13 Visible Series. Rev.H

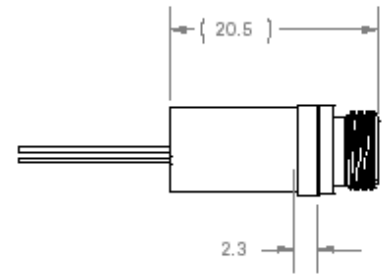
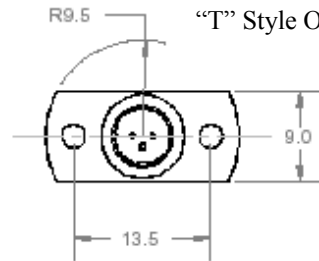
5.6mm Diameter Laser In FC Panel Mount Receptacle



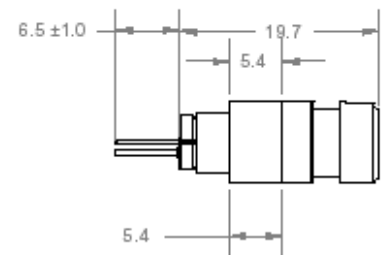
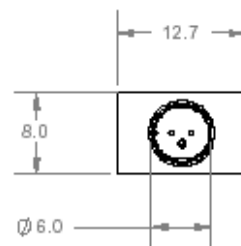
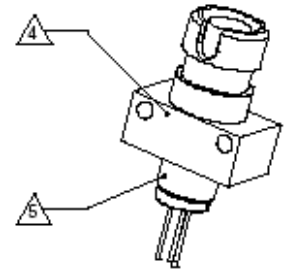
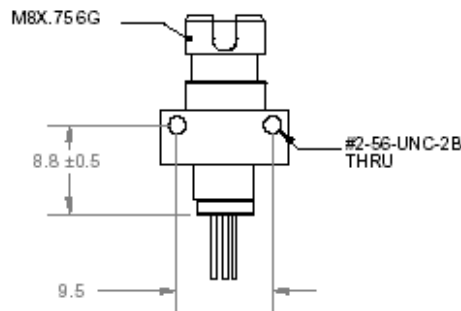
“Z” Style Orientation



“T” Style Orientation



5.6mm Diameter Laser in FC Board Mount Receptacle

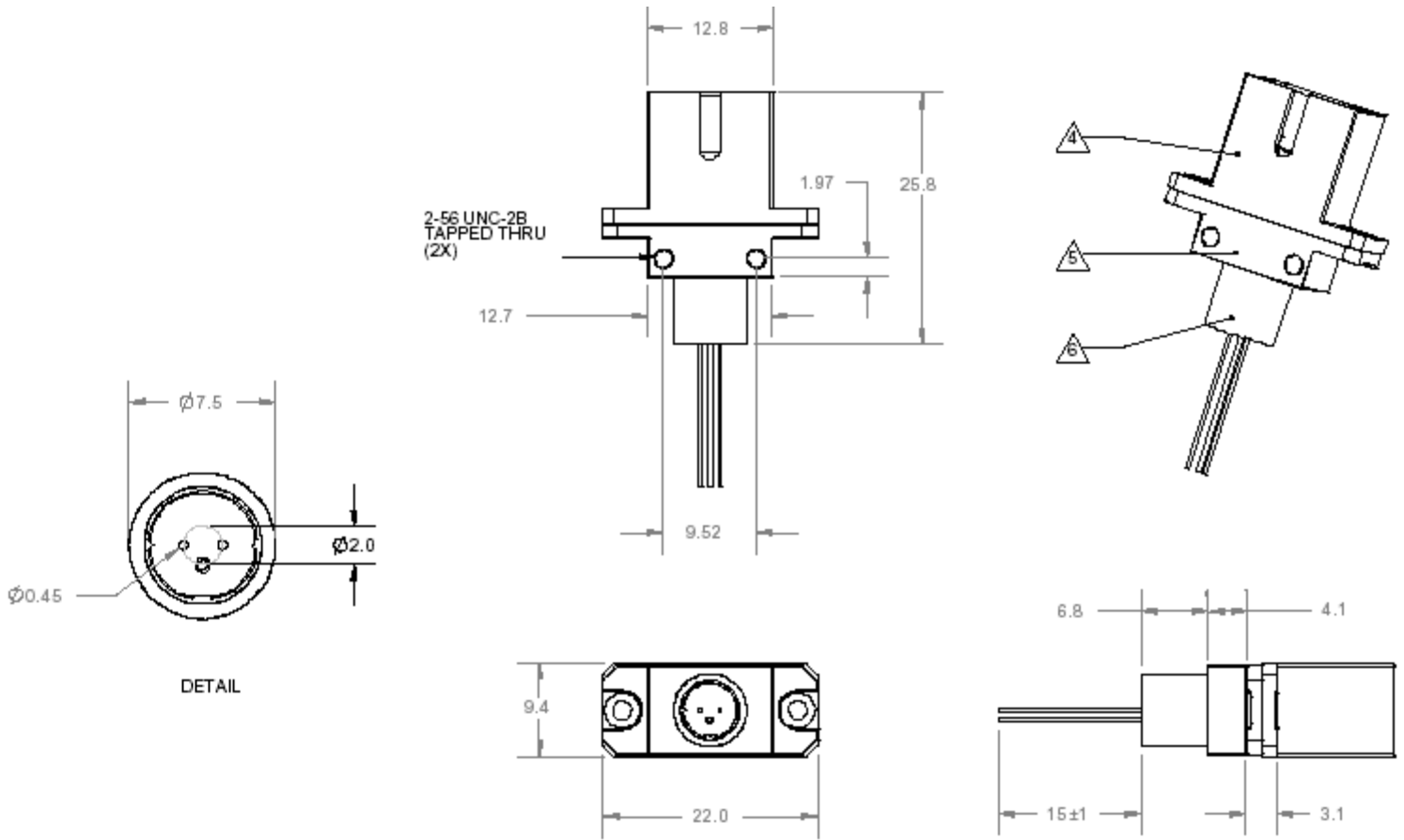


¹Examples only; most device/packaging combinations available.

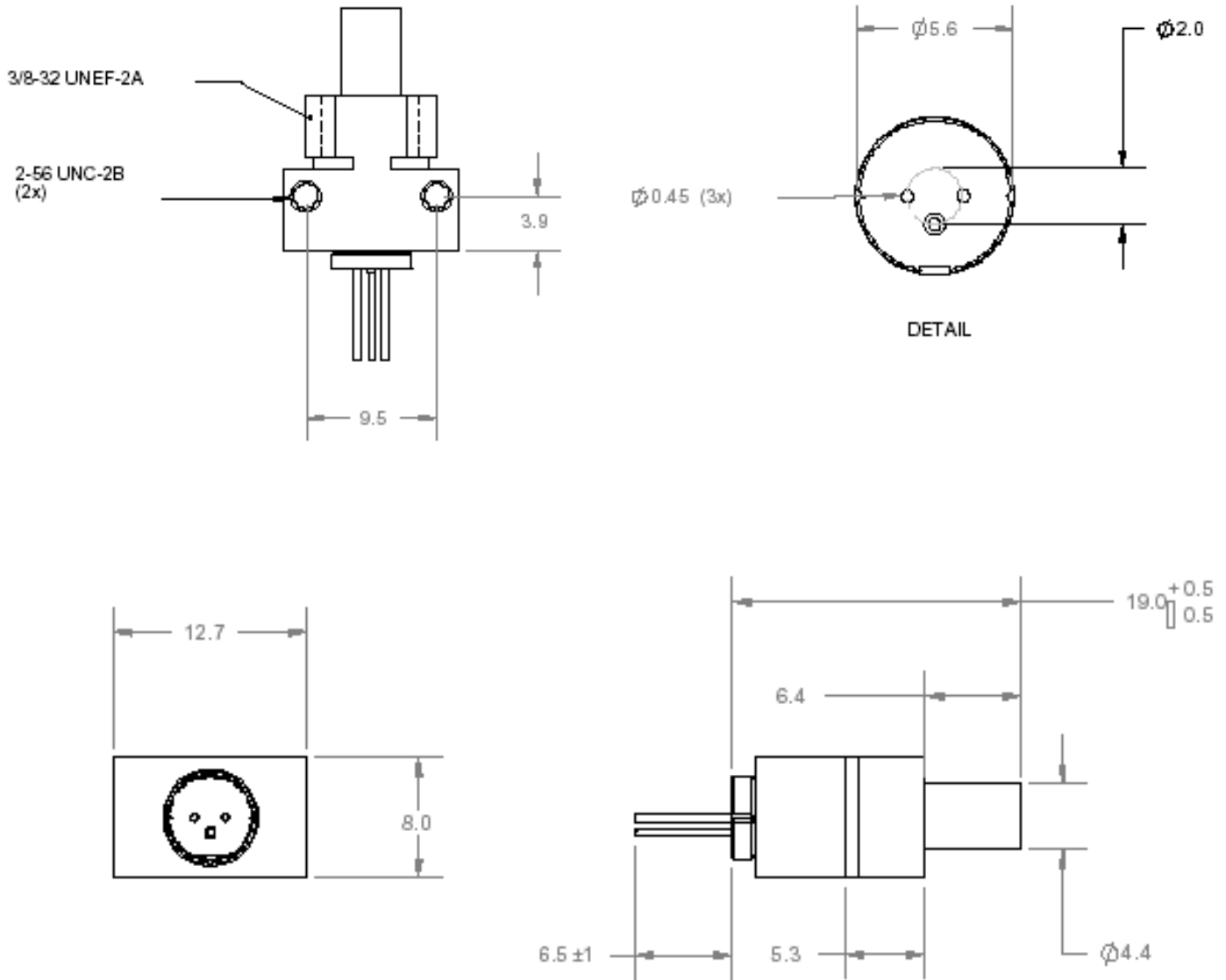
Changes to specifications may be made without notice.

7-13 Visible Series. Rev.H

5.6mm Laser Mounted in SC2 Panel/Board Mount Receptacle



Universal Receptacle for 2.5mm Ferrule



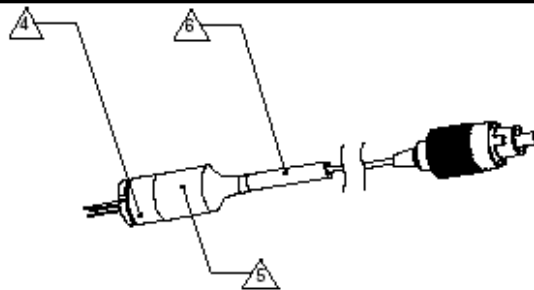
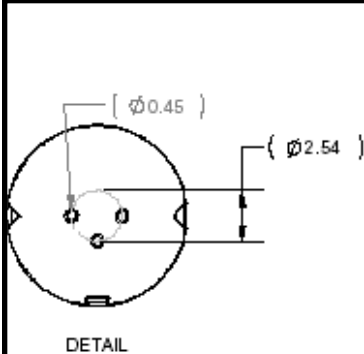
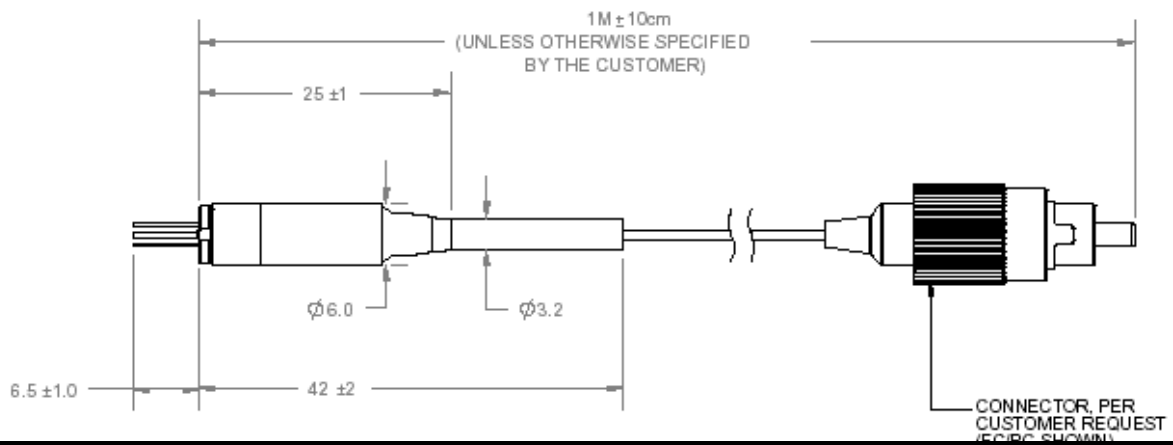
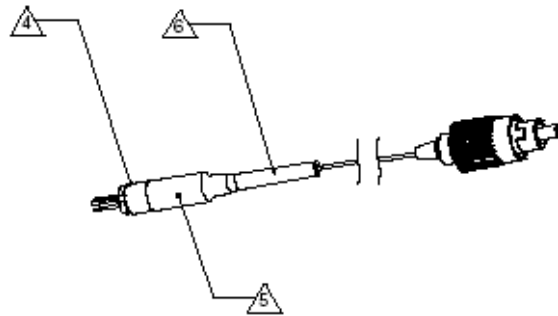
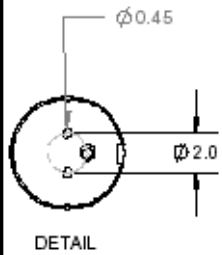
¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 7-13 Visible Series. Rev.H

5.6mm (top) & 9.0mm (bottom) Fiber Pigtailed Laser Diodes

NOTES:

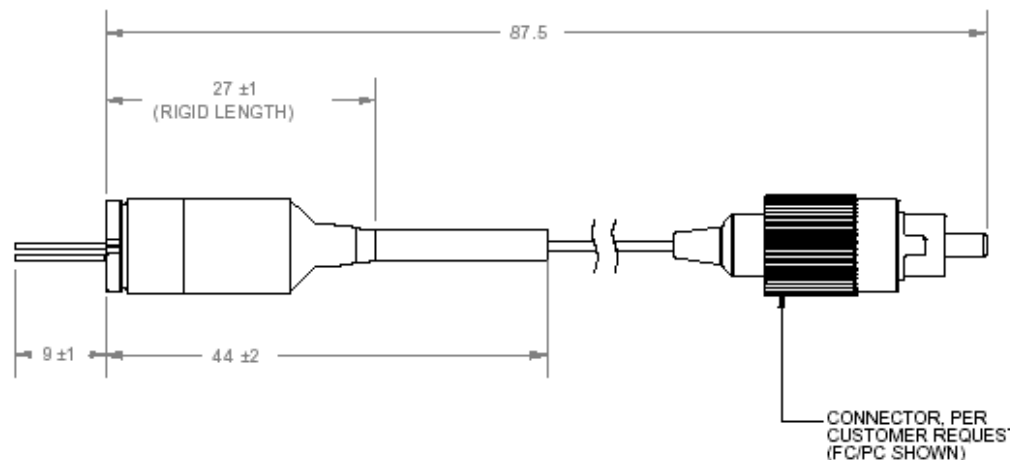
- 1 THESE DEVICES ARE ESD SENSITIVE. ESD PRECAUTIONS ARE ADVISED.
- 2 ALL DEVICES ARE SHIPPED WITH ESD LEAD PROTECTORS AND DUST COVERS.
- 3 ALL DEVICES WILL BE MARKED WITH A PD-LD SERIAL NUMBER.

- 4 BRASS
- 5 DELRIN, BLACK
- 6 SILICONE RUBBER, RED



- 1 THESE DEVICES ARE ESD SENSITIVE. ESD PRECAUTIONS ARE ADVISED.
- 2 ALL DEVICES ARE SHIPPED WITH ESD LEAD PROTECTORS AND DUST COVERS.
- 3 ALL DEVICES WILL BE MARKED WITH A PD-LD SERIAL NUMBER.

- 4 BRASS
- 5 DELRIN
- 6 SILICONE RUBBER, RED

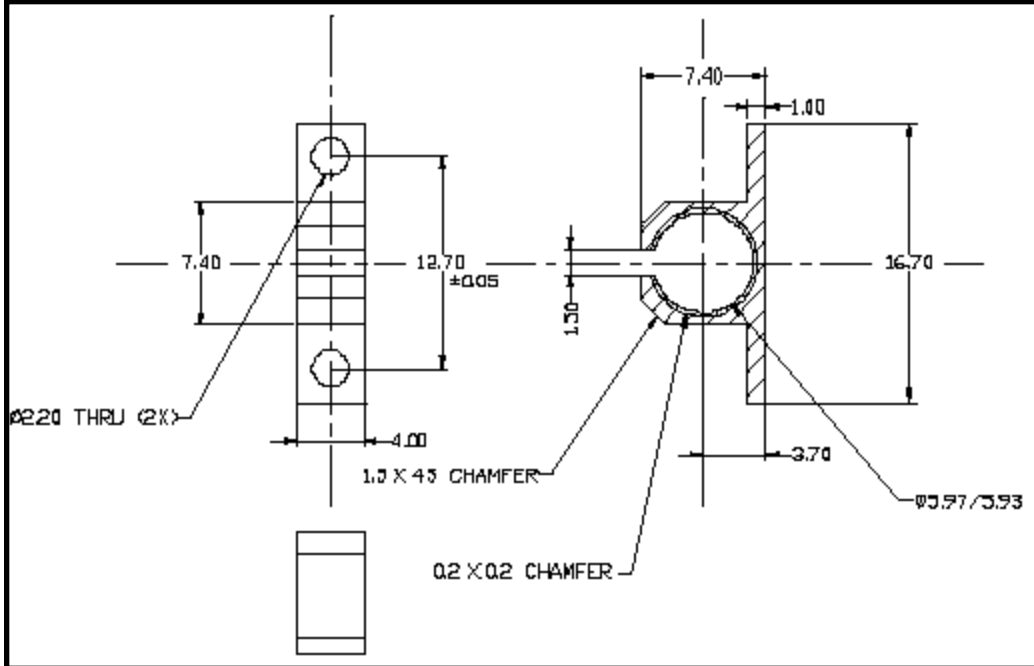


Absolute Maximum Ratings (Tc=25°C)

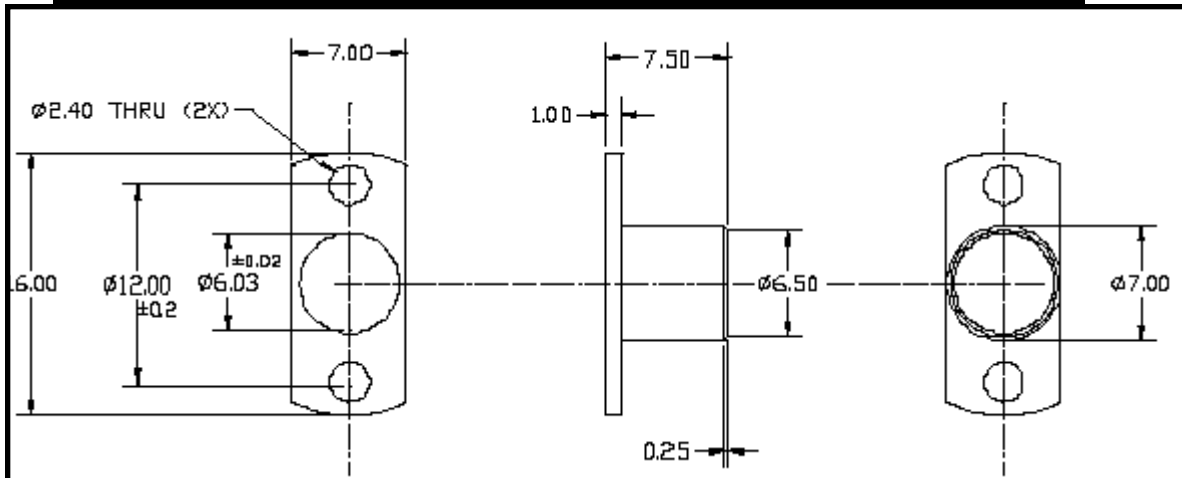
Parameter	Symbol	Value	Unit
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	T_{OPR}	-10 to 60	°C
Storage Temperature	T_{STR}	-40 to 85	°C
Soldering Temperature	T_{Solder}	260	°C (5 seconds max)

¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 7-13 Visible Series. Rev.H

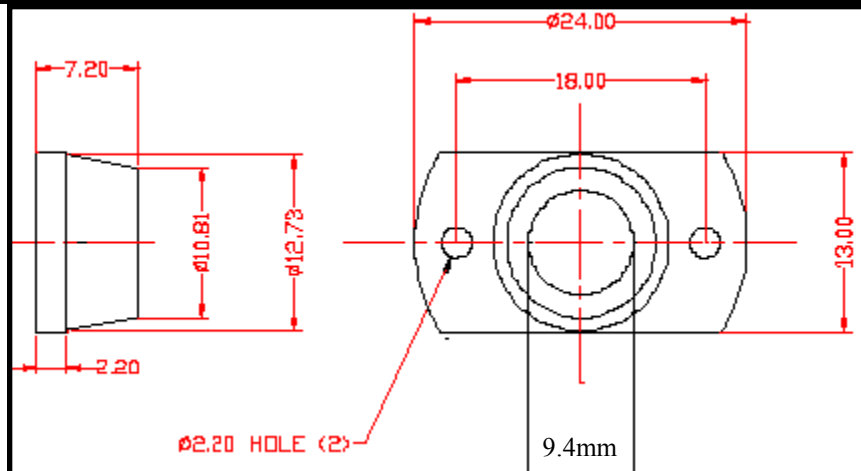
Board Mounting Bracket "D" for 5.6mm Pigtailed Lasers



Panel Mounting Bracket "E" for 5.6mm Pigtailed Lasers



Panel Mount Bracket "B" for 9.0mm Pigtailed Lasers



¹Examples only; most device/packaging combinations available.

Changes to specifications may be made without notice.

7-13 Visible Series. Rev.H