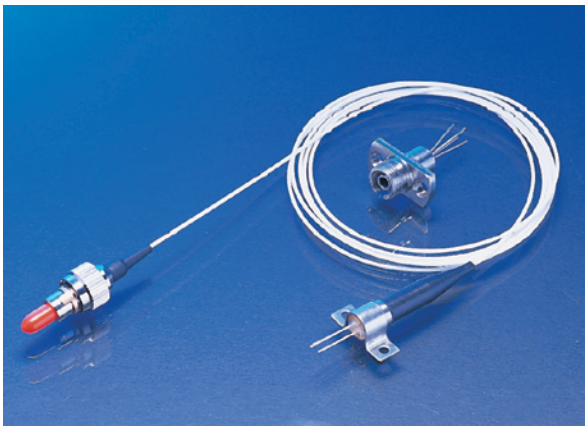
Luminent
Bringing Communications to Light™

Analog 1310nm Laser Diode Module

C-13-001A-P-SXXX/XXX-X



Features

- Laser diode with multi-quantum-well structure
- Un-cooled operation at -40 to +85°C
- Built-in InGaAs monitor photodiode
- Hermetically sealed active component
- Complies with Bellcore TA-NWT-000983
- Fiber pigtailed package with optional FC/ST/SC/LC/MU connector
- Design for analog fiber optics application

Absolute Maximum Rating (Tc=25°C)

Parameter	Symbol	Value	Unit
Fiber Output Power H/2	P_f	2.5(H) , 3(2)	mW
Reverse Voltage	V_{RLD}	2	V
PD Reverse Voltage	V_{RPD}	10	V
PD Forward Voltage	I_{FPD}	1.0	mA
Operating Temperature	T_{opr}	-40 to +85	°C
Storage Temperature	T_{stg}	-40 to +85	°C

Optical and Electrical Characteristics(Tc=25°C)

Parameter		Symbol	Min	Typical	Max	Unit	Test Condition
Threshold Current		I_{th}	-	10	20	mA	CW
Operating Current		I_{op}	-	30	45	mA	CW
Optical Output Power	H 2	P_f	1 2	- -	2 -	mW	CW, I_{th}+ 20 mA , kink free
Operating Voltage		P_f	-	1.2	1.5	V	CW, P_f=P_f(Min)
Center Wavelength		λ_c	1290	1310	1330	nm	CW, P_f=P_f(Min)
Spectral Width (RMS)		$\Delta\lambda$	-	-	3	nm	CW, P_f=P_f(Min)
Slope Efficiency	H 2	S_e	0.05 0.1	- -	0.1 -	mW/mA	CW, P_f=P_f(Min)
Optical Isolation		OI	45 30	- -	- -	dB	-40°C <Tc<85°C
Rise/Fall Time		t_r/t_f	-	-	0.3	ns	I_{bias}=I_{th} 10% to 90%
Relative Intensity Noise		RIN	-	-145	-140	dB/Hz	CW
Second Order Distortion		SSO	-	-	-50	dBc	Note 1
Third Order Distortion		STO	-	-	-55	dBc	Note 1
Monitor Current		I_m	100	-	1000	µA	CW, P_f=P_f(Min),V_{RPD}=2V
Monitor Dark Current		I_{DARK}	-	-	0.1	µA	V_{RPD}=5V
Photodiode Capacitance		C	-	6	15	pF	V_{RPD}=5V, f=1MHz
Tracking Error		$\Delta P_f / P_f$	-1.0	-	+1.0	dB	APC, -40 to +85°C

(All optical data refer to a coupled 9/125µm SM fiber)

Ordering Information

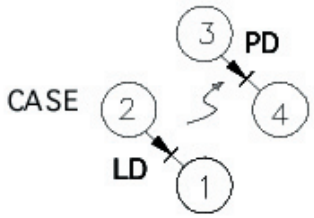
C-13-001A-PX-SXXXI/XXX-X

- Wavelength: 13=1310nm
- Analog
- Package: P=Pigtail
- Pin Assignment: "-" = A Type
- Connector: FC/ST/SC/MU/LC/-
- Fiber Output Power: H/2
- "I" = Isolator; "-" = No Isolator
- Flange type (-;O;V;K)
- "-" : PC Fiber; APC : APC Fiber

Pin Assignment

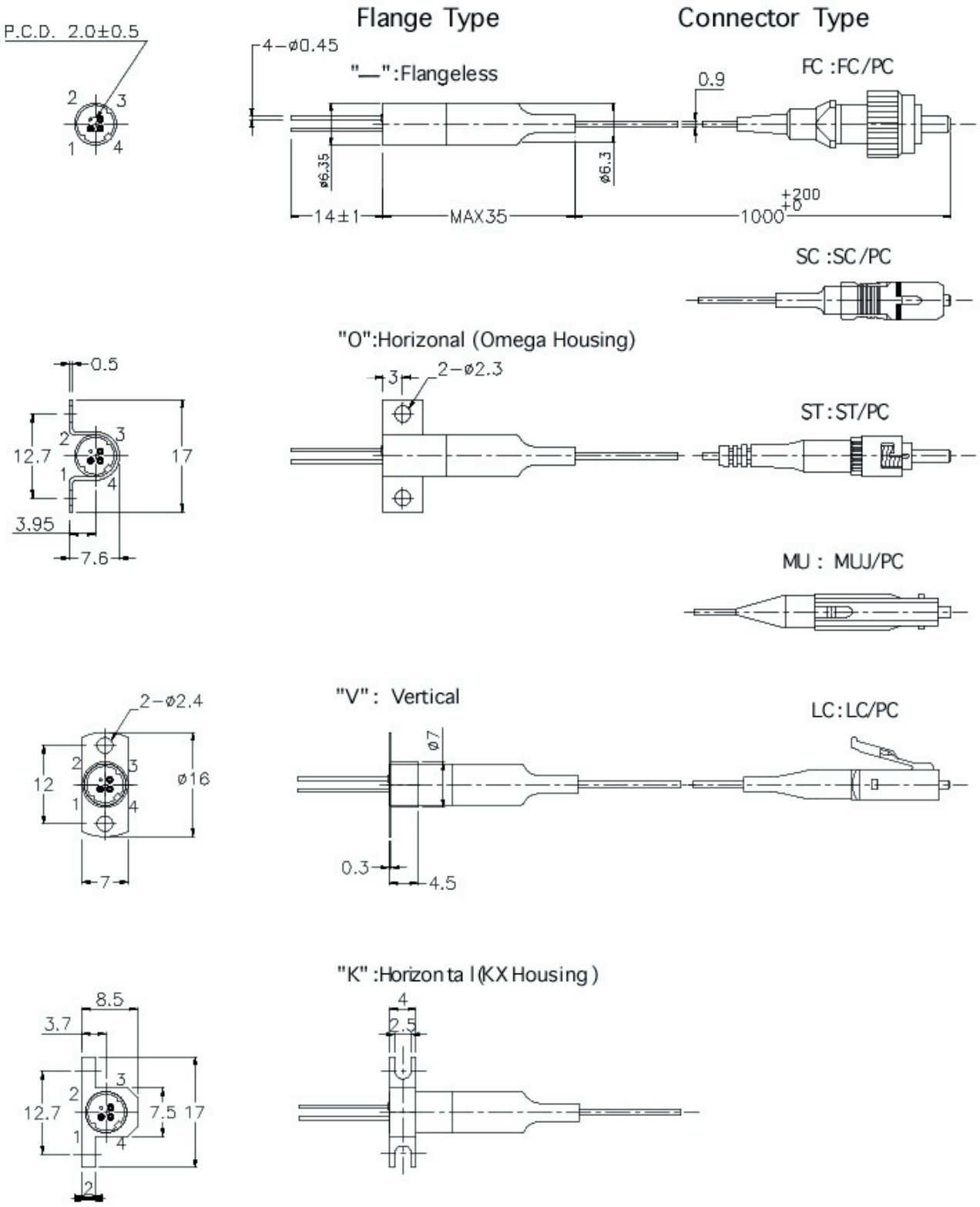
LD Module- Pigtailed **Part Number: C-13-001A-P-SXXX/XXX-X** **Units in mm**

A Type



P in1 :Laser Cathode
P in2 :Laser Anode and Case Gnd
P in3 :Monitor Diode Anode
P in4 :Monitor Diode Cathode

Packaging Dimensions



Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.
Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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