



Features

- Un-cooled laser diode with MQW structure
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Telcordia Technologies GR-468-CORE
- Single frequency operation with high SMSR

Packaging

- Fiber pigtailed with optional SC connector
- The O type flange is loose and included in the shipment

Application

- Design for 2.5G CWDM high speed optic networks
- RoHS Compliant available

Absolute Maximum Ratings (Tc=25 °C)

Parameter	Symbol	Rating	Unit	
Fiber Output Power	L/M/H/2	P _f	0.6(L)/1(M)//2(H)/3.3(2)	mW
LD Reverse Voltage	V _{RLD}	2	V	
PD Reverse Voltage	V _{RPD}	15	V	
LD Forward Current	I _F	15	mA	
PD Forward Current	I _{FPD}	2	mA	
Operating Temperature	T _{opr}	0 ~ 70		
Storage Temperature	T _{stg}	-40 ~ 85		

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

Optical and Electrical Characteristics (Tc=25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Threshold Current	I _{th}	-	-	20	mA	CW
Fiber Output Power	L	0.2	-	0.5	mW	CW, I _{th} +25mA, kink free
	M	0.5	-	1		
	H	1	-	-		CW, I _{th} +30mA, kink free
	2	2	-	3.3		
Peak Wavelength		n-3	n	n+3	nm	Note 3
Slope Efficiency	L	0.008	-	0.02	mW/mA	CW, P _f = P _f (Min)
	M	0.02	-	0.04		
	H	0.04	-	-		
	2	0.067	-	0.11		
Side mode Suppression	S _r	30	35	-	dB	CW, P _f = P _f (Min), 0 ~ 70

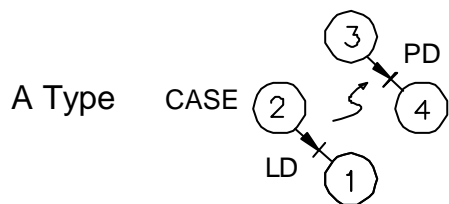
Forward Voltage	V_F	-	-	1.7	V	CW
Rise Time / Fall Time	T_r / T_f	-	-	150	ns	$I_{bias}=I_{th}$, 20%~80% lead length<1mm
Tracking Error	P_f / P_f	-1.5	-	1.5	dB	APC, 0 ~ 70
PD Monitor Current	I_m	100	-	-	μA	CW, $P_f = P_f(\text{Min})$, $V_{RPD} = 5V$
PD Dark Current	I_{dark}	-	-	0.1	μA	$V_{RPD} = 5V$
PD Capacitance	C_t	-	10	-	pF	$V_{RPD} = 5V$, $f = 1\text{MHz}$
Optical Isolation	OI	30	-	-	dB	$T_c=25$ 0 < T_c < 70
		20	-	-		

Note:

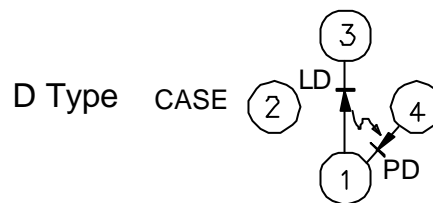
1. Pin assignment can be customized.
2. Specifications subject to change without notice.
3. Selected wavelength is available for WDM application.

* Peak wavelength n=1270;1290;1310;1330;1350;1370;1390;1410;1430;1450;1470;1490
;1510;1530;1550;1570;1590;1610

Pin Assignment

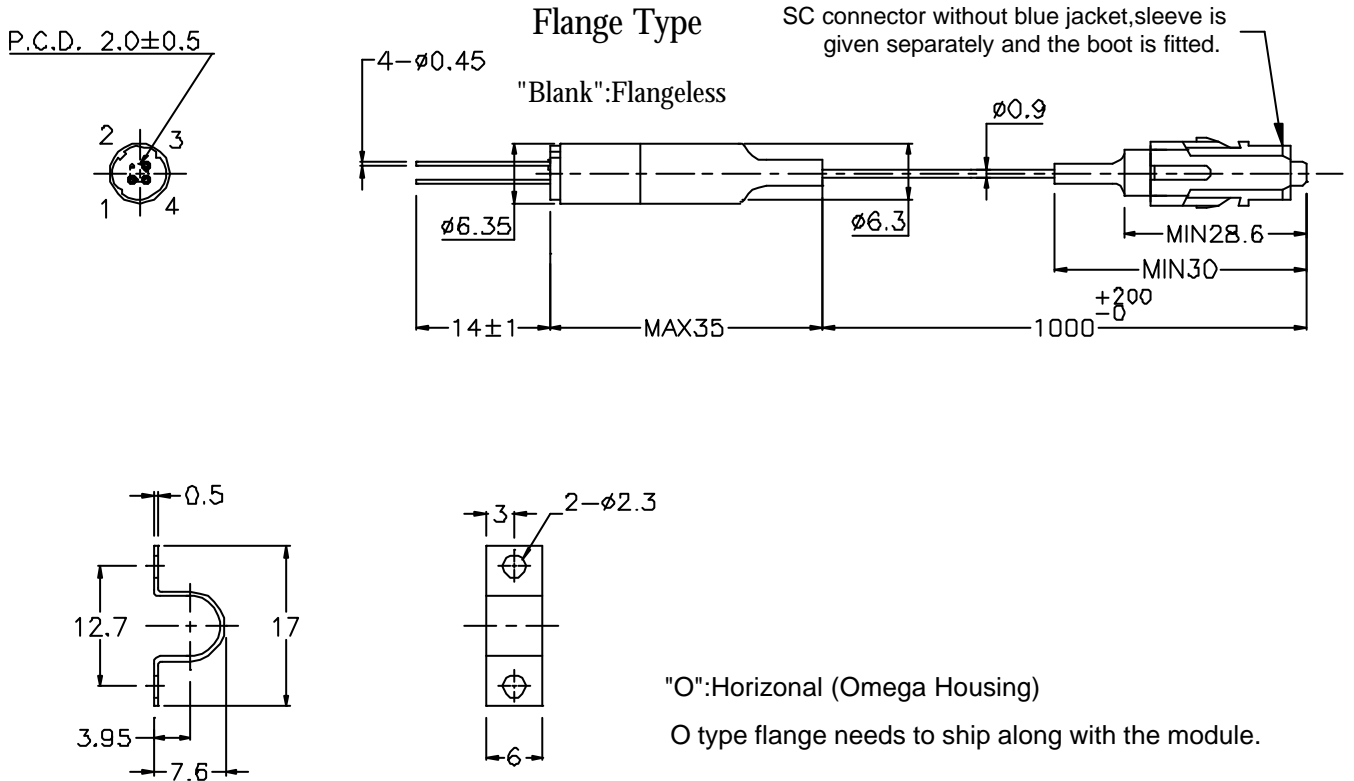


Pin 1 : Laser Cathode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Monitor Diode Anode
Pin 4 : Monitor Diode Cathode



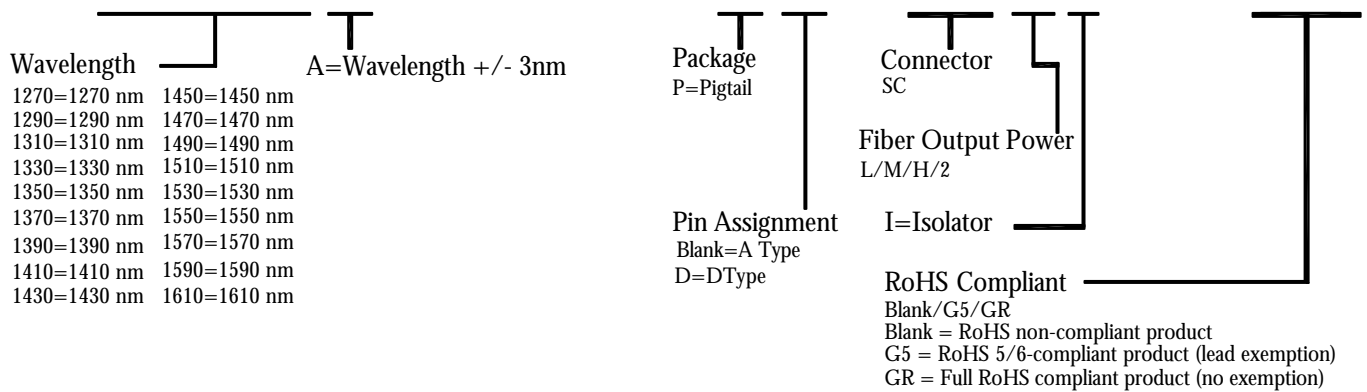
Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode

Packaging Dimensions (Units in mm)



Ordering Information

C-1XXXA-DFB2.5-PX-SSCXI-03-XX



Warnings

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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