1XXXnm	C-1XXX-DFB-E-XX-NT	*1300nm series CWDM DFB Laser Diodes*

Features

- Uncooled laser diode with MQW structure
- 5mW CW operation at 0~70℃
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Bellcore TA-NWT-000983
- Single frequency operation with high SMSR

Packaging

- TO-18 with a flat window cap or a ball lens cap

Note:

1. Pin assignment can be customized.
2. Specifications subject to change without notice.

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.

Absolute Maximum Ratings(Tc=25℃)

Parameter	Symbol	Value	Unit
Optical Output Power	Po	10(CW)	mW
LD Reverse Voltage	V_{RLD}	2	V
PD Reverse Voltage	V_{RPD}	10	V
PD Forward Current	I_{FPD}	2	mA
Operating Temperature	T_{opr}	0~+70	℃
Storage Temperature	T_{stg}	-40~+100	℃

Optical and Electrical Characteristics(Tc=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Slope Efficiency Flat window cap Ball lens cap	SE	 0.28 0.20	 0.36 0.28	 - -	mW/mA	CW,P_o=5mW
Threshold Current	I_{th}	-	10	15	mA	CW,P_o=5mW
Optical Output Power	Po	5	-	-	mW	CW, I=Ith+20mA
Peak Wavelength*	λ	n-2	n	n+2	nm	Note
Side mode Suppression	Sr	30	35	-	dB	CW,P_o=5mW(0~70℃)
Forward Voltage	V_F	-	1.2	1.5	V	CW,P_o=5mW
Temperature dependence of peak wavelength	Δλp/ΔT	-	0.09	-	nm/℃	CW,P_o=5mW(0~70℃)
Beam Divergence	$\theta_{//}$ $\theta_{\perp}$	- -	27 32	- -	deg.	CW,P_o=5mW,FWHM
Rise/Fall Time	t_r / t_f	-	-	0.5	ns	I_{bias}=I_{th},10-90 %
PD Monitor Current	I_m	100	200	800	μA	CW,P_o=5mW,V_{RPD}=2V
PD Dark Current	I_{DARK}	-	-	0.1	μA	V_{RPD}=5V
PD Capacitance	C_t	-	6	15	pF	V_{RPD}=5V, f=1MHz

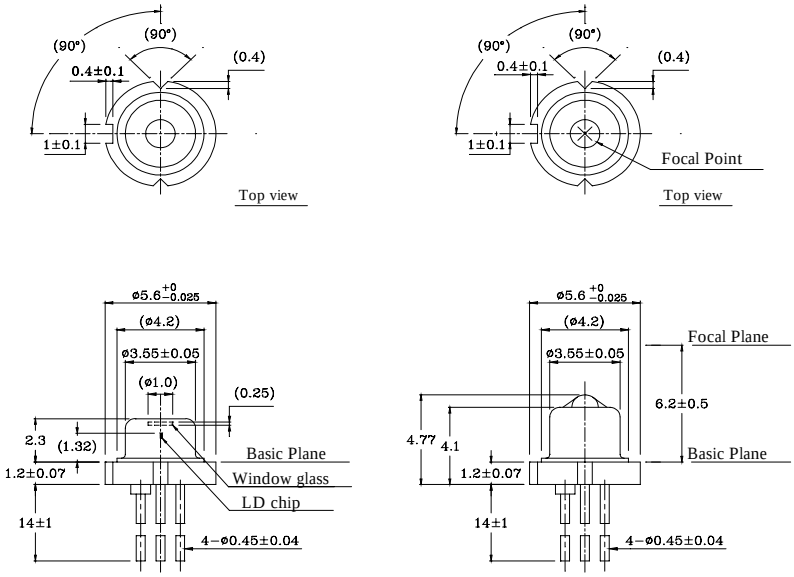
Optical and Electrical Characteristics(Tc=70℃)

Threshold Current	I_{th}	-	-	50	mA	CW,P_o=5mW
Optical Output Power	Po	8	-	-	mW	CW,I=Ith+60mA

Note: Selected wavelength is available for CWDM application.

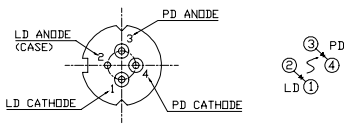
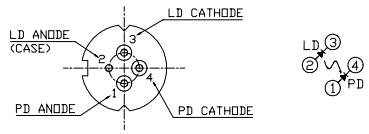
***** Peak wavelength n=1274.6nm,1299.1nm,1323.6nm,1348.1nm

Units in mm.



Flat window cap Ball lens cap

LD Pin Assignment

Model	PIN Assignment (Bottom View)
A-type	
B-type	
D-type