

Features

- Uncooled laser diode with MQW structure
- 5mW CW operation at 0~70°C
- 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°C)

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	°C
Storage Temperature	T _{stg}	-40~+100	°C

Optical and Electrical Characteristics(Tc=25°C)

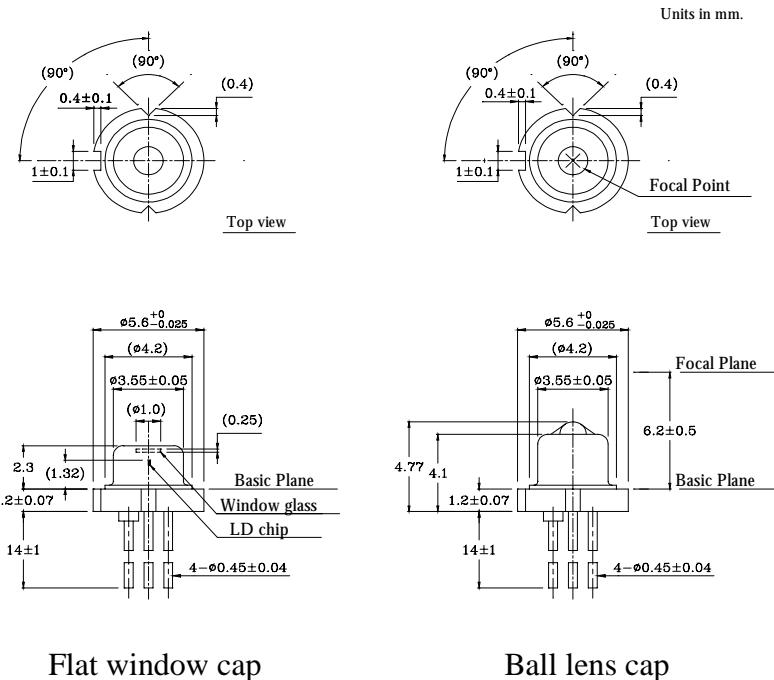
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Slope Efficiency	SE					
Flat window cap		0.28	0.36	-	mW/mA	CW,P _o =5mW
Ball lens cap		0.20	0.28	-		
Threshold Current	I _{th}	-	10	15	mA	CW,P _o =5mW
Optical Output Power	Po	5	-	-	mW	CW, I=I _{th} +20mA
Peak Wavelength*	λ	n-2	n	n+2	nm	Note
Side mode Suppression	Sr	30	35	-	dB	CW,P _o =5mW(0~70°C)
Forward Voltage	V _F	-	1.2	1.5	V	CW,P _o =5mW
Temperature dependence of peak wavelength	Δ λ p / Δ T	-	0.09	-	nm/°C	CW,P _o =5mW(0~70°C)
Beam Divergence	θ //	-	27	-	deg.	CW,P _o =5mW,FWHM
	θ ⊥	-	32	-		
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°C)

Threshold Current	I _{th}	-	-	50	mA	CW,P _o =5mW
Optical Output Power	Po	8	-	-	mW	CW,I=I _{th} +60mA

Note: Selected wavelength is available for CWDM application.

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



LD Pin Assignment

Model	PIN Assignment (Bottom View)
A-type	<p>Detailed description: A circular pin assignment diagram for an A-type LD. It shows four pins numbered 1 through 4 around the perimeter. Pin 1 is at the bottom, 2 is at the top, 3 is at the top-right, and 4 is at the bottom-right. Labels indicate 'LD ANODE (CASE)' at the top-left, 'LD CATHODE' at the bottom-left, 'PD ANODE' at the top-right, and 'PD CATHODE' at the bottom-right. A separate small diagram shows the pin layout with 'LD ③' at the top, '② ④' at the bottom, and '① PD' on the right.</p>
B-type	<p>Detailed description: A circular pin assignment diagram for a B-type LD. It shows four pins numbered 1 through 4 around the perimeter. Pin 1 is at the bottom, 2 is at the top, 3 is at the top-left, and 4 is at the bottom-left. Labels indicate 'LD ANODE (CASE)' at the top-left, 'LD CATHODE' at the top-right, 'PD ANODE' at the bottom-left, and 'PD CATHODE' at the bottom-right. A separate small diagram shows the pin layout with 'LD ③' at the top, '② ④' at the bottom, and '① PD' on the right.</p>
D-type	<p>Detailed description: A circular pin assignment diagram for a D-type LD. It shows four pins numbered 1 through 4 around the perimeter. Pin 1 is at the bottom, 2 is at the top, 3 is at the top-left, and 4 is at the bottom-left. Labels indicate 'CASE' at the top-left, 'LD CATHODE' at the top-right, 'LD ANODE' at the bottom-left, and 'PD CATHODE' at the bottom-right. A separate small diagram shows the pin layout with 'LD ③' at the top, '② LD ④' at the bottom, and '① PD' on the right.</p>