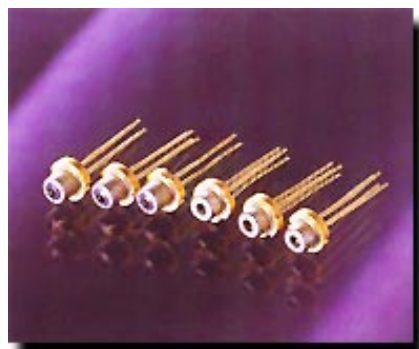


1510nm

C-151-001-E-A
C-151-001-E-B

1510nm Laser Diodes



Features

- Uncooled laser diode with MQW structure
- 5mW CW operation at $-40\sim 85^{\circ}\text{C}$
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Bellcore TA-NWT-000983

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 guidelines.

Absolute Maximum Ratings($T_c=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Optical Output Power	P_o	6 (CW)	mW
LD Reverse Voltage	V_{RLD}	2	V
PD Reverse Voltage	V_{RPD}	10	V
PD Forward Current	I_{FPD}	2.0	mA
Operating Temperature	T_{opr}	$-40\sim +85$	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	$-40\sim +100$	$^{\circ}\text{C}$

Optical and Electrical Characteristics($T_c=25^{\circ}\text{C}$)

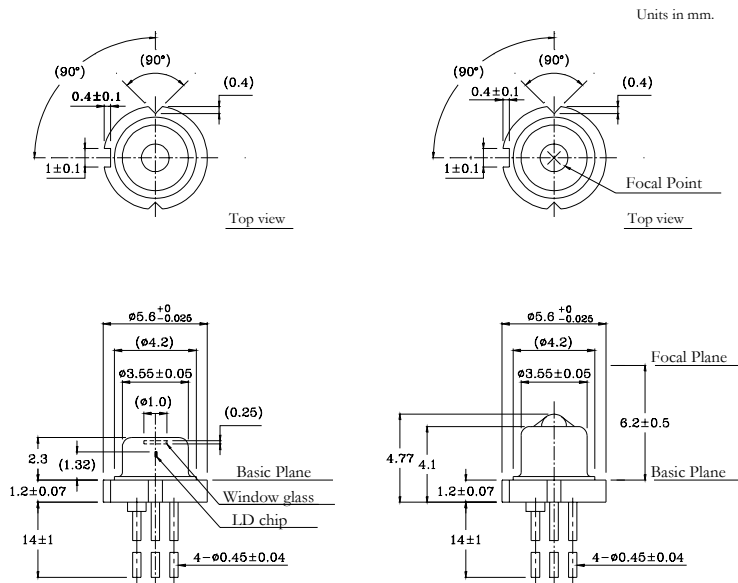
Parameter	Symbol	Min.	Typ.	Max	Unit	Test condition
Slope Efficiency						
C-151-001-E-A	SE	0.2	0.25	-	mW/mA	CW, $P_o=5\text{mW}$
C-151-001-E-B		0.15	0.18			
Threshold Current	I_{th}	-	10	15	mA	CW, $P_o=5\text{mW}$
Optical Output Power	P_o	5	-	-	mW	CW, kink free
Peak Wavelength	λ	1490	1510	1530	nm	CW, $P_o=5\text{mW}$
Spectral Width	$\Delta \lambda$	-	2	5	nm	CW, $P_o=5\text{mW}$
Forward Voltage	V_F	-	1.2	1.5	V	CW, $P_o=5\text{mW}$
Beam Divergence	$\theta_{//}$	-	20	-	deg.	CW, $P_o=5\text{mW}$, FWHM
	$\theta_{\perp}$	-	40	-		
Rise/Fall Time	t_r / t_f	-	-	0.5	ns	$I_{bias}=I_{th}$, 10-90 %
PD Monitor Current	I_m	100	-	-	μA	CW, $P_o=5\text{mW}$, $V_{RPD}=2\text{V}$
PD Dark Current	I_{DARK}	-	-	0.1	μA	$V_{RPD}=5\text{V}$
PD Capacitance	C_t	-	6	15	pF	$V_{RPD}=5\text{V}$, $f=1\text{MHz}$

Note: Selected wavelength is available for WDM application

1510nm

C-151-001-E-A
C-151-001-E-B

1510nm Laser Diodes

C-151-001-E-A
C-151-001-E-AB
C-151-001-E-ADC-151-001-E-B
C-151-001-E-BB
C-151-001-E-BD

LD Pin Assignment

Model	PIN Assignment (Bottom View)
C-151-001-E-A C-151-001-E-B	
C-151-001-E-AB C-151-001-E-BB	
C-151-001-E-AD C-151-001-E-BD	

1510nm

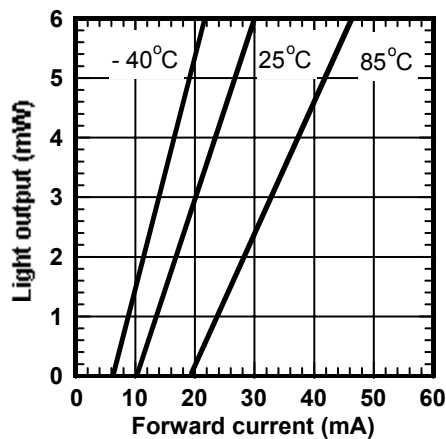
C-151-001-E-A

C-151-001-E-B

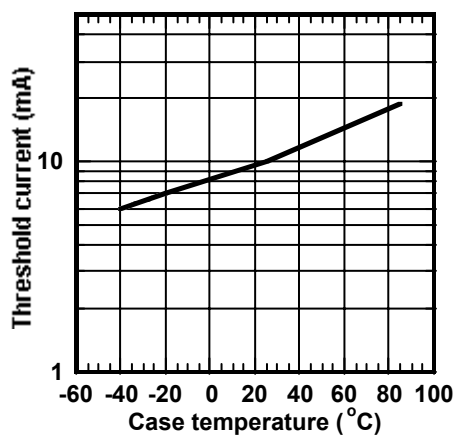
1510nm Laser Diodes

C-151-001-E-A

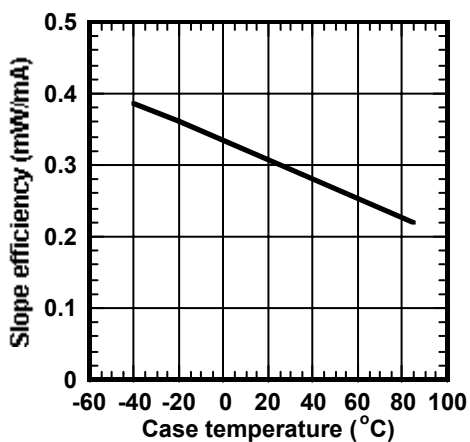
Light output vs. forward current



Threshold vs. case temperature



Slope efficiency vs. case temperature



Peak wavelength vs. case temperature

