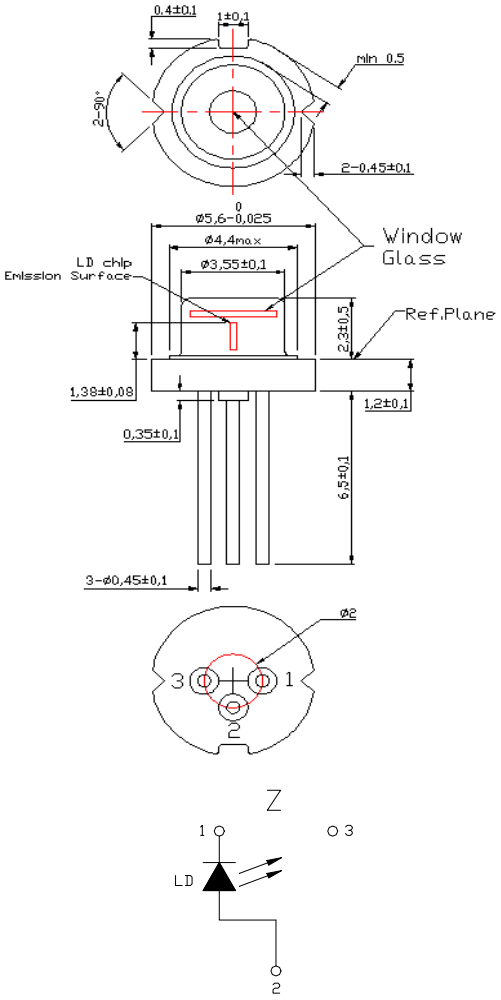
Infrared Laser Diode **ADL-80Y05TZ**

6-2D-LD80-019_Rev.01

808nm 200mW High Power Operation



- **Features**
  1. High pumping efficiency
  2. Stable wavelength
  3. High reliability

- **Applications**
  1. Pumping source for DPSS green laser
  2. Medical applications

- **Absolute maximum ratings**

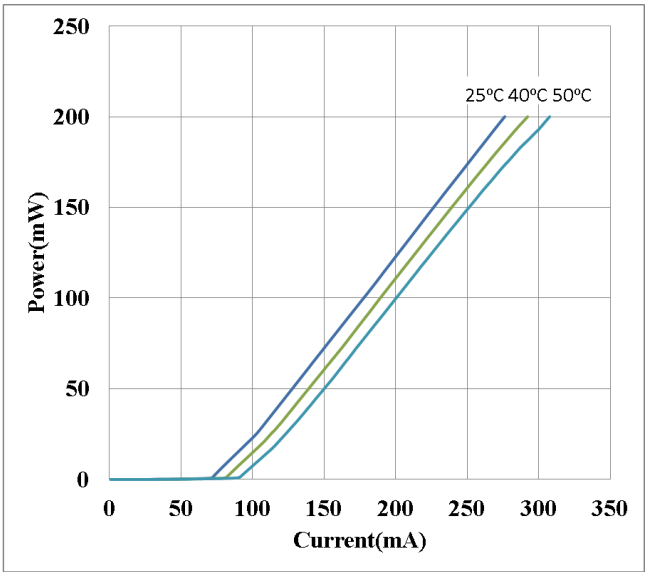
Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	220	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Case temperature	T_C	-	-10~+50	°C
Storage temperature	T_S	-	-40~+85	°C

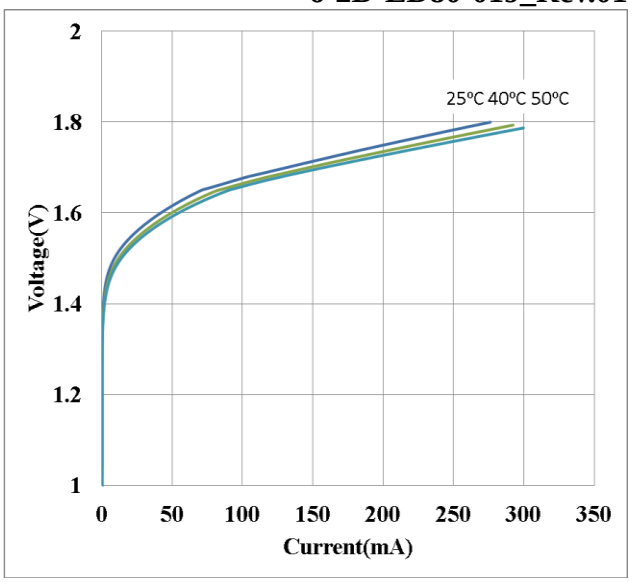
- **Electrical and optical characteristics (T_c=25 °C)**

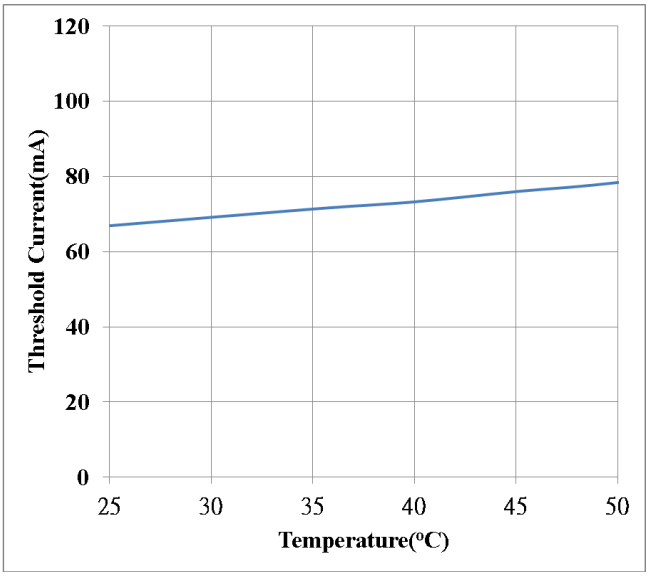
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions (CW)
Peak wavelength	λ	804	-	809	nm	P_o=200mW
Threshold current	I_{th}	-	60	100	mA	
Operating current	I_{op}	-	260	300	mA	
Operating voltage	V_{op}	-	1.9	2.2	V	
Differential efficiency	η	0.8	1.0	-	mW/mA	P_o=150-200mW
Parallel divergence angle	$\theta_{//}$	-	6	11	deg	P_o=200mW
Perpendicular divergence angle	$\theta_{\perp}$	-	28	40	deg	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-3	0	+3	deg	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-5	0	+5	deg	
Emission point accuracy	Δ xΔ yΔ z	-80	0	+80	um	

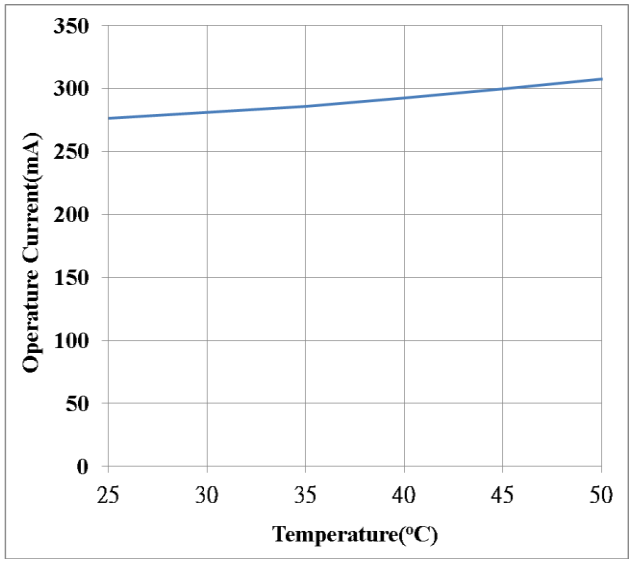
●Precautions

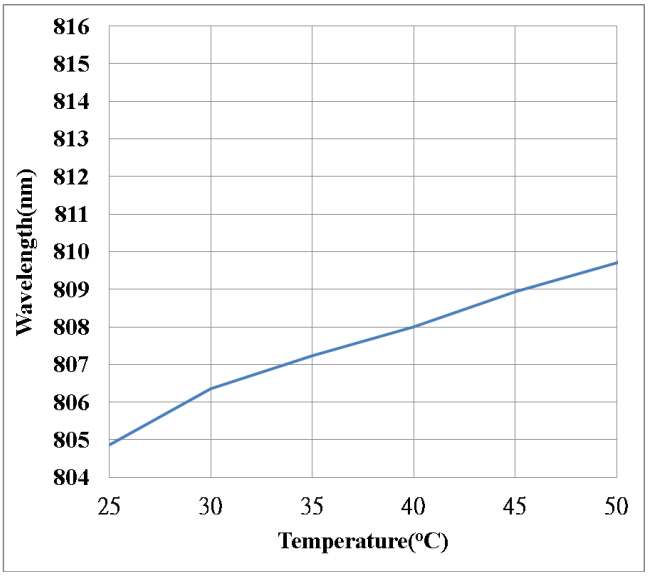
* Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
* Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
* Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
* Observing visible or invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
* No laser device should be used in any application or situation where life or property is at risk in event of device failure.
* Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.

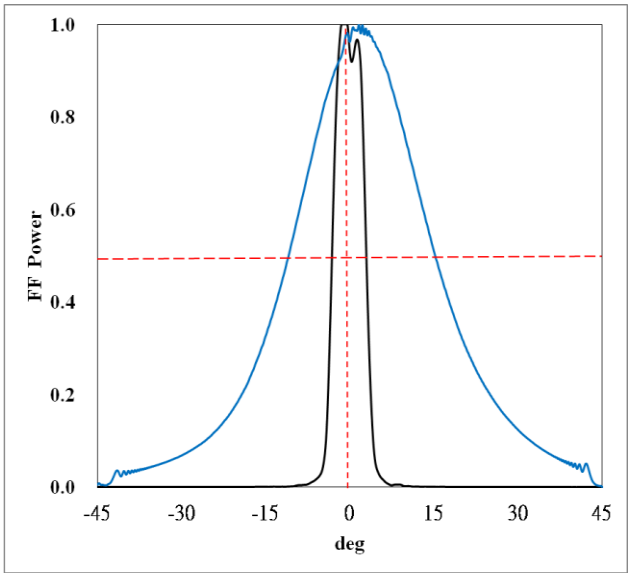

25ºC 40ºC 50ºC
Power(mW)
Current(mA)
0
50
100
150
200
250
300
350


25ºC 40ºC 50ºC
Voltage(V)
Current(mA)
1
1.2
1.4
1.6
1.8
2


Threshold Current(mA)
Temperature(ºC)
0
20
40
60
80
100
120
25
30
35
40
45
50


Operature Current(mA)
Temperature(ºC)
0
50
100
150
200
250
300
350
25
30
35
40
45
50


Wavelength(nm)
Temperature(ºC)
804
805
806
807
808
809
810
811
812
813
814
815
816
25
30
35
40
45
50


FF Power
deg
0.0
0.2
0.4
0.6
0.8
1.0
-45
-30
-15
0
15
30
45