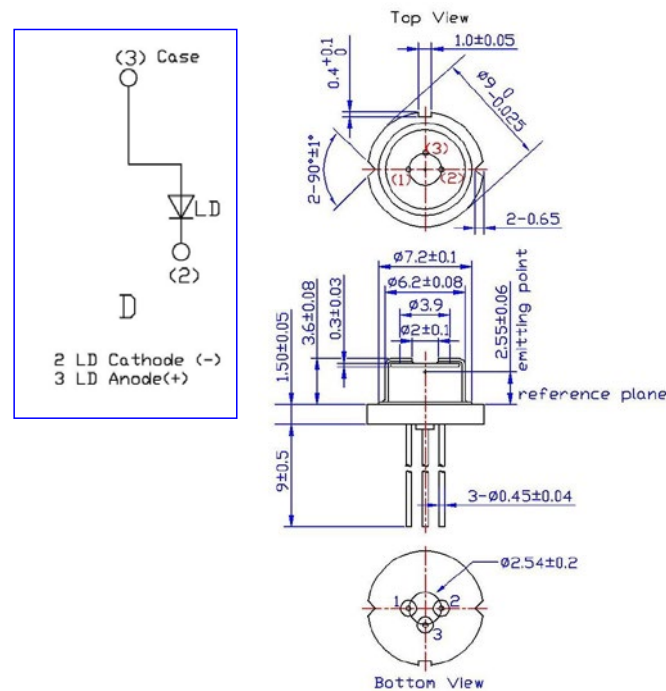


## 808nm IR Laser Diode LCU80E056D-preliminary

### ■ Specifications

- (1) Device: Laser Diode  
 (2) Structure: TO-5 (  $\phi$  9.0mm ) ,With Pb free glass cap, no PD, easy decap  
 (3) Power Output: 500mW

### ■ External dimensions (Unit: mm)



### ■ Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbols	Ratings	Units
Optical Output	Po	<b>500</b>	mW
Reverse Voltage	Vr	<b>2</b>	V
Operating Temperature ( Case )	Top	-10~+50	°C
Storage Temperature	Tstg	-10~+85	°C

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### 808nm Laser Diode

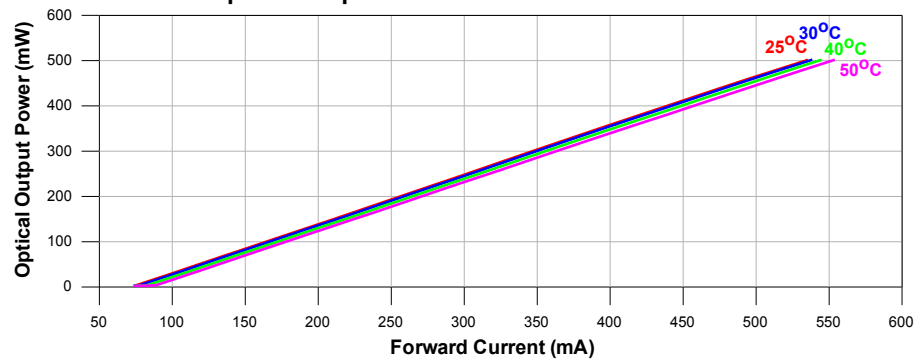
#### Electrical and Optical Characteristics (Tc=25°C)

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Units	
Threshold Current	I <sub>th</sub>	P <sub>o</sub> =500mW	-	70	100	mA	
Operating Current	I <sub>op</sub>	P <sub>o</sub> =500mW	-	540	590	mA	
Operating Voltage	V <sub>op</sub>	P <sub>o</sub> =500mW	-	1.9	1.95	Volts	
Slope Efficiency	η	375mW-125mW	0.8	1.1	-	mW/mA	
		I <sub>375mW</sub> -I <sub>125mW</sub>					
Beam Divergence (FWHM)	Parallel	θ //	P <sub>o</sub> =500mW	-	10	-	deg.
	Perpendicular	θ ⊥	P <sub>o</sub> =500mW	-	31	-	deg.
Lasing Wavelength*	λ	P <sub>o</sub> =500mW	803	808	811	nm	

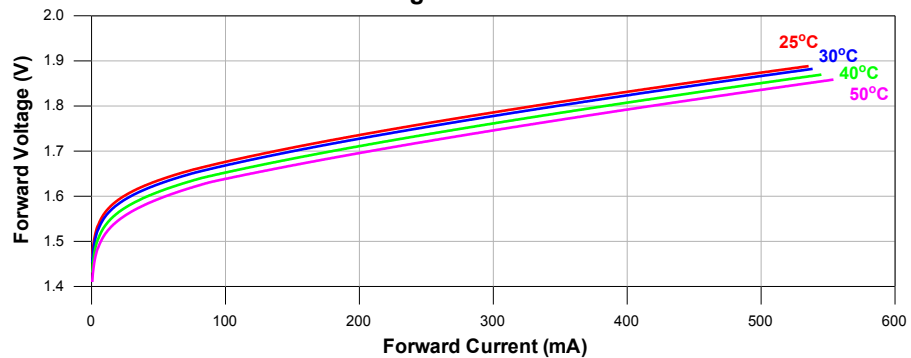
◎ θ // and θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

#### Typical characteristic curves

Optical Output Power v.s. Forward Current

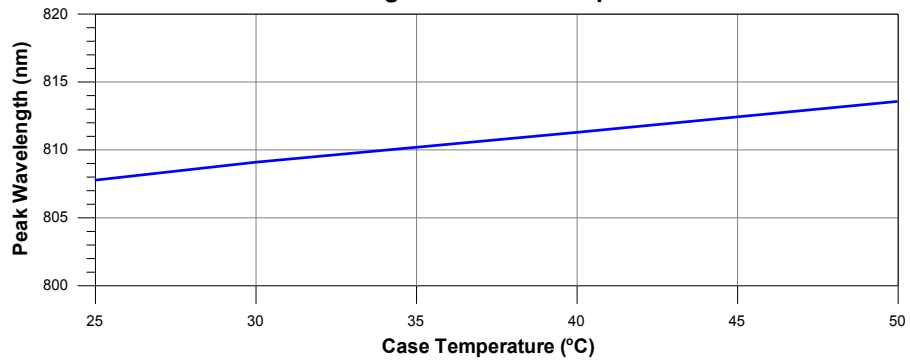


Forward Voltage v.s. Forward Current

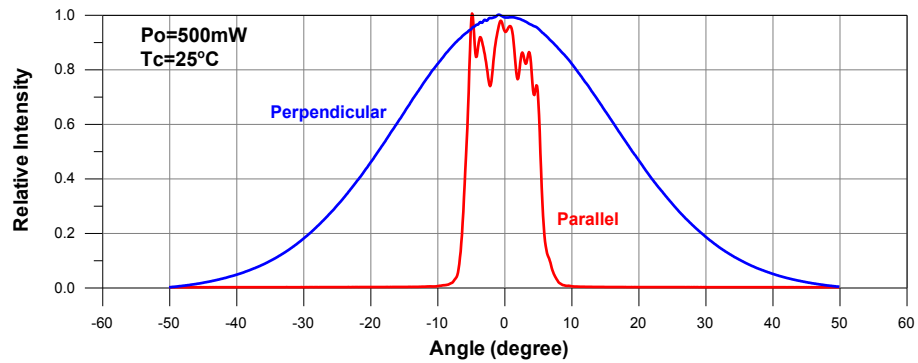


### 808nm Laser Diode

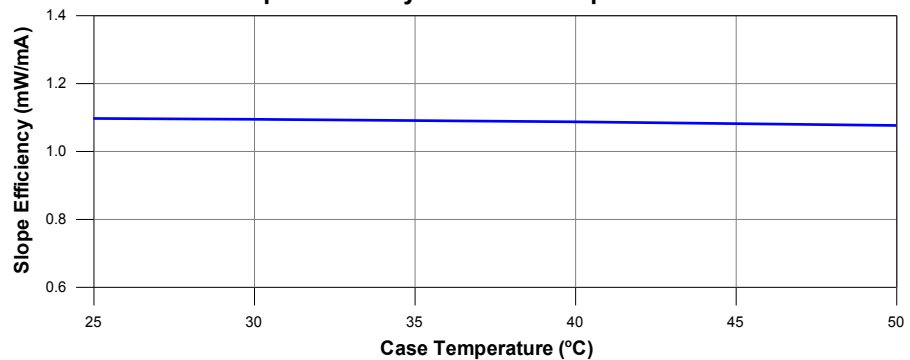
Peak Wavelength v.s. Case Temperature



Far-Field Pattern



Slope Efficiency v.s. Case Temperature



### 808nm Laser Diode

