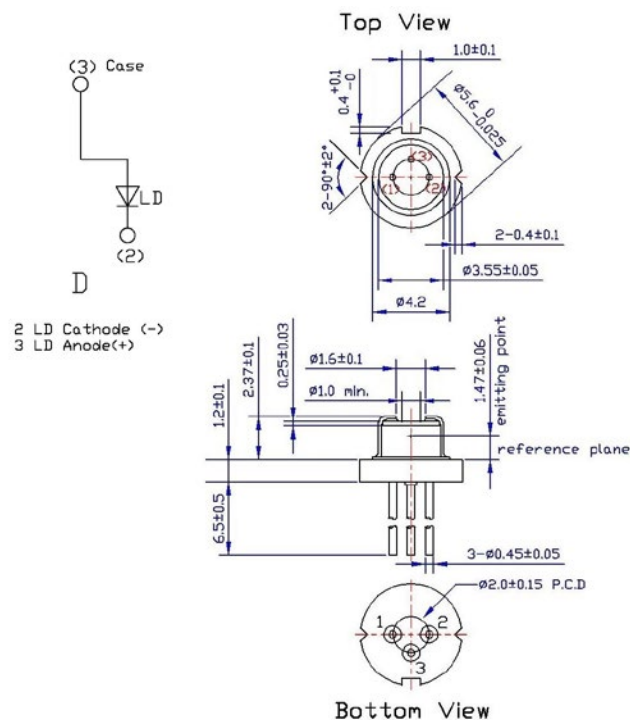


## 808nm IR Laser Diode LCU80C056D-preliminary

### ■ Specifications

- (1) Device: Laser Diode  
 (2) Structure: TO-18 (  $\phi$  5.6mm ) ,With Pb free glass cap,no PD  
 (3) Power Output: 300mW

### ■ External dimensions (Unit: mm)



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

Parameter	Symbols	Ratings	Units
Optical Output	Po	<b>300</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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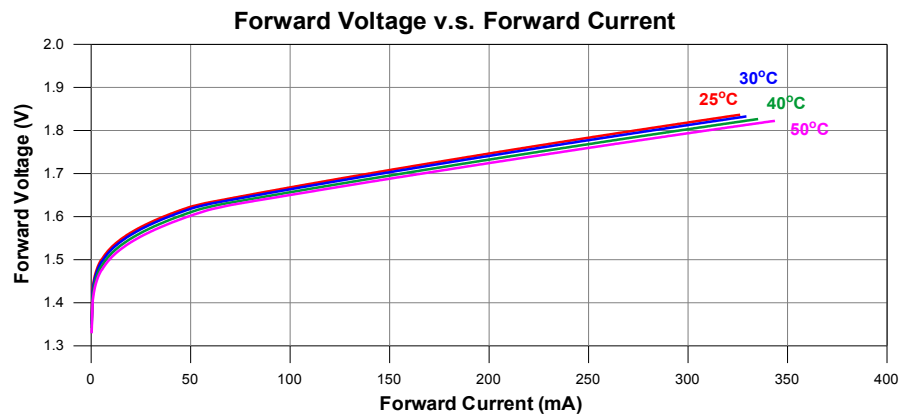
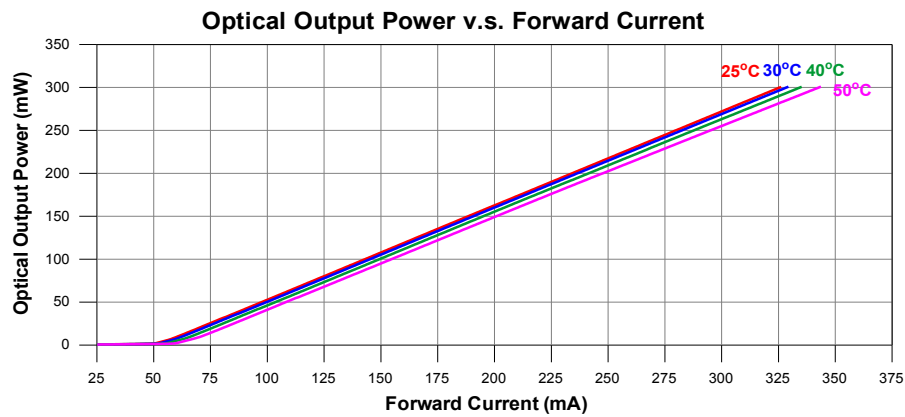
### 808nm Laser Diode

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

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Units	
Threshold Current	I <sub>th</sub>	P <sub>o</sub> =300mW	-	50	100	mA	
Operating Current	I <sub>op</sub>	P <sub>o</sub> =300mW	-	330	355	mA	
Operating Voltage	V <sub>op</sub>	P <sub>o</sub> =300mW	-	1.84	2.0	Volts	
Slope Efficiency	η	225mW-75mW	0.8	1.1	-	mW/mA	
		I <sub>225mW</sub> -I <sub>75mW</sub>					
Beam Divergence (FWHM)	Parallel	θ //	P <sub>o</sub> =300mW	-	7.5	-	deg.
	Perpendicular	θ ⊥	P <sub>o</sub> =300mW	-	30	-	deg.
Lasing Wavelength*	λ	P <sub>o</sub> =300mW	805	808	811	nm	

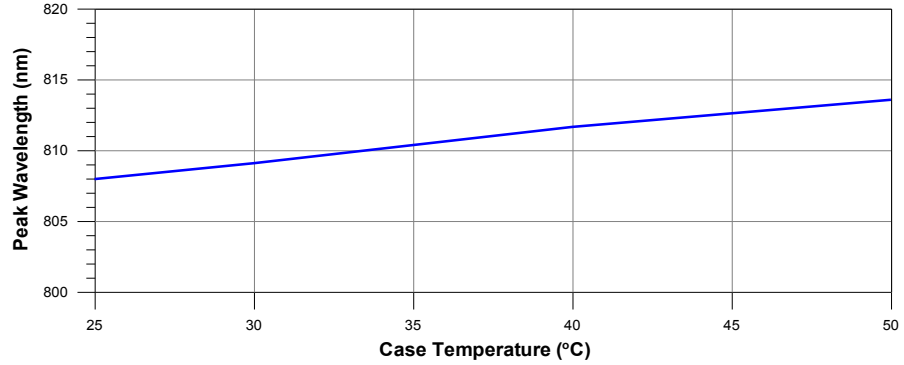
⊙ θ // and θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

#### Typical characteristic curves

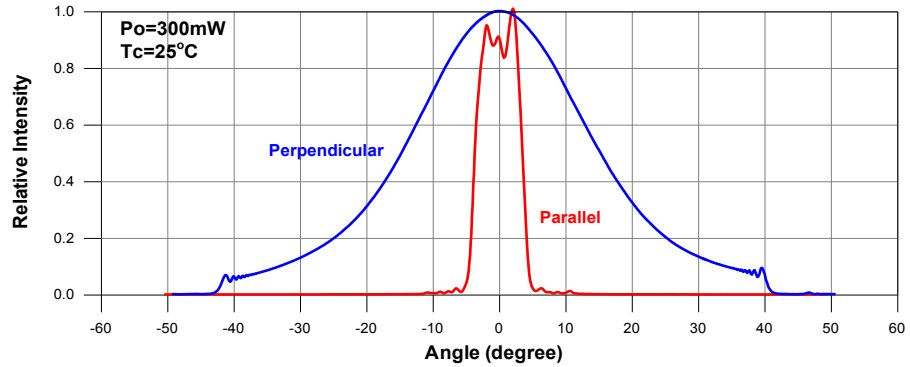


**808nm Laser Diode**

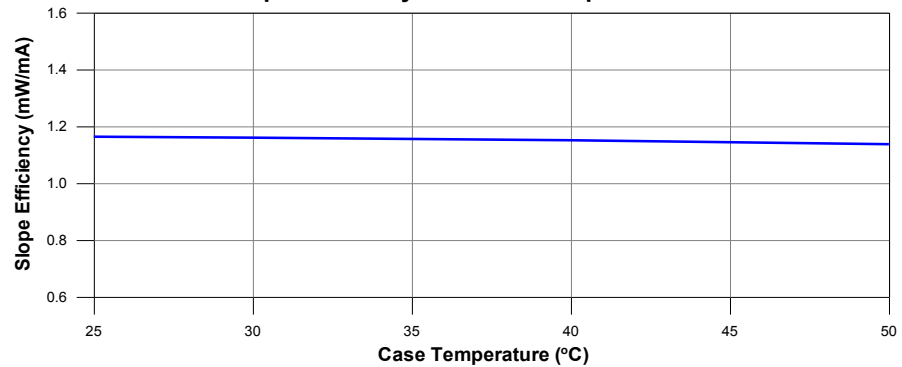
**Peak Wavelength v.s. Case Temperature**



**Far-Field Pattern**



**Slope Efficiency v.s. Case Temperature**



### 808nm Laser Diode

