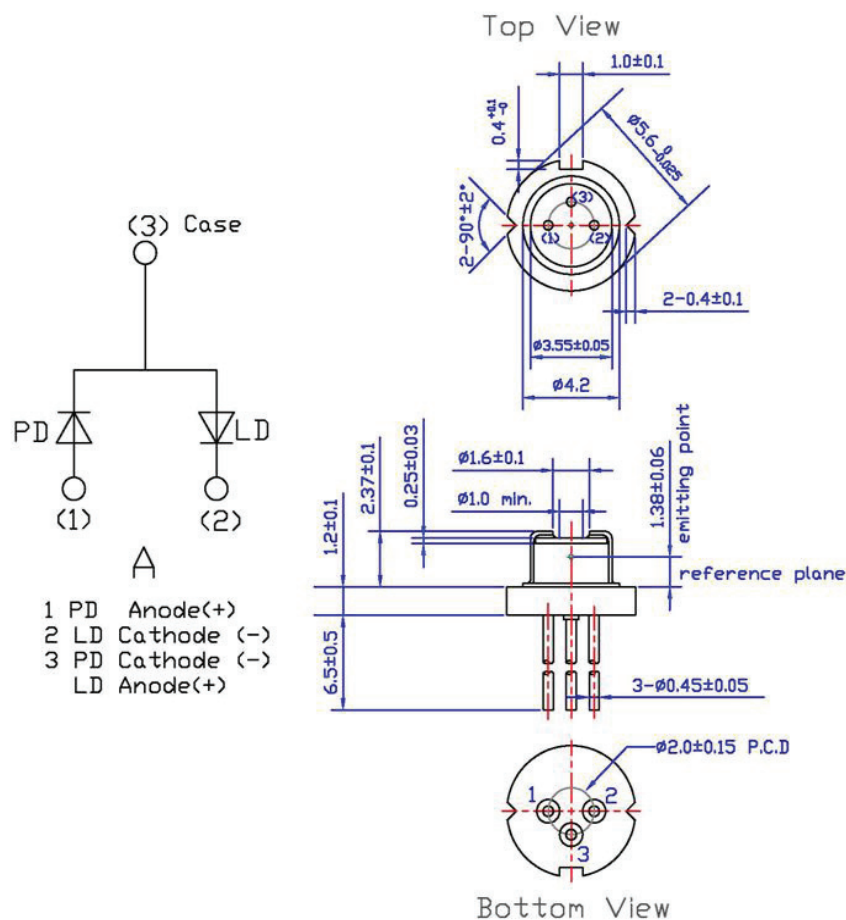


850nm IR Laser Diode LCU85A051A-preliminary

■ Specifications

- (1) Device: Laser Diode
 (2) Structure: TO-18 (ϕ 5.6mm), With Pb free glass cap, PD

■ External dimensions (Unit : mm)



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

Parameter	Symbols	Ratings	Units
Optical Output	P_o	100	mW
Reverse Voltage	Laser	2	V
	PIN PD	30	V
Operating Temperature	T_{op}	-10 ~ +50	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +85	$^\circ\text{C}$

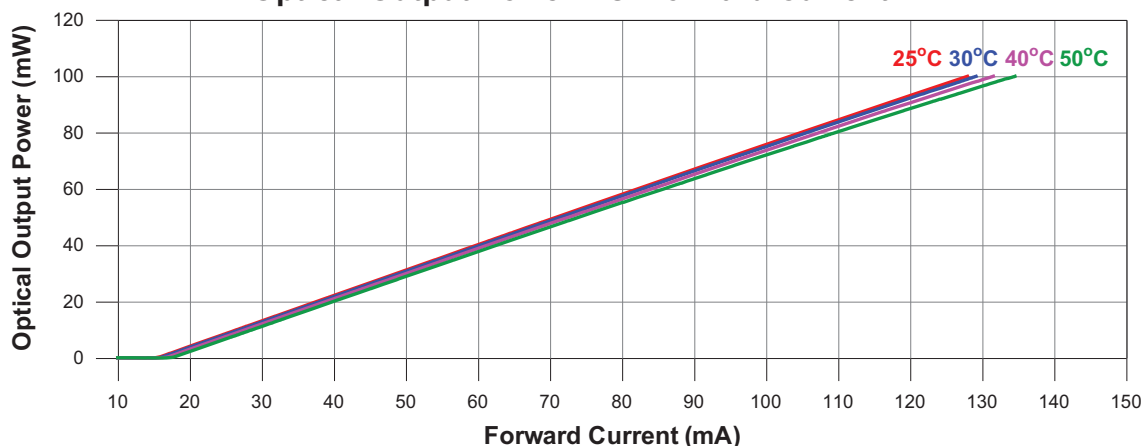
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Units	
Threshold Current	I _{th}	-	-	18	25	mA	
Operating Current	I _{op}	P _o =100mW	-	127	150	mA	
Operating Voltage	V _{op}	-	-	2.4	2.8	Volts	
Slope Efficiency	η	75mW-25mW	-	0.90	-	mW/mA	
		I _{75mW} -I _{25mW}					
Monitor Current	I _m	P _o =100mW	0.1	0.25	1	mA	
Beam Divergence (FWHM)	Parallel	θ //	P _o =100mW	-	10	15	deg.
	Perpendicular	θ ⊥	P _o =100mW	-	18	23	deg.
Lasing Wavelength*	λ	P _o =100mW	840	850	860	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

