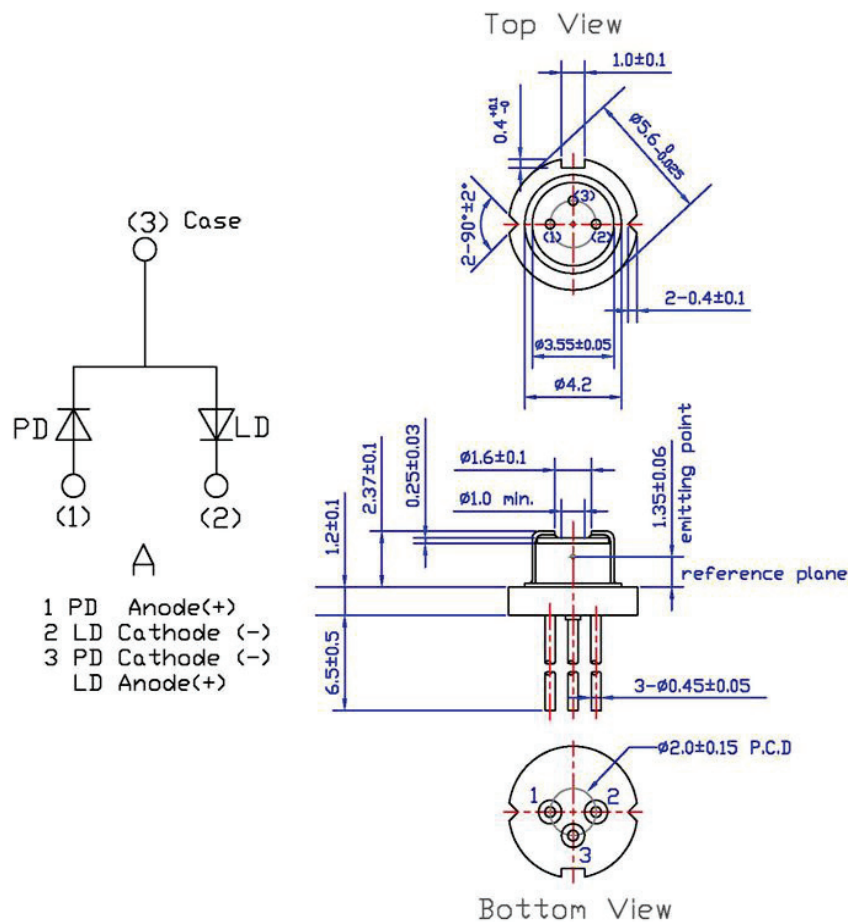


830nm IR Laser Diode LCU83E051A-preliminary

■ 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(Tc=25°C)

Parameter	Symbols	Ratings	Units
Optical Output	Po	500	mW
Reverse Voltage	Laser	Vr	2
	PIN PD	Vr(PIN)	30
Operating Temperature	Top	-10~+50	°C
Storage Temperature	Tstg	-40~+85	°C

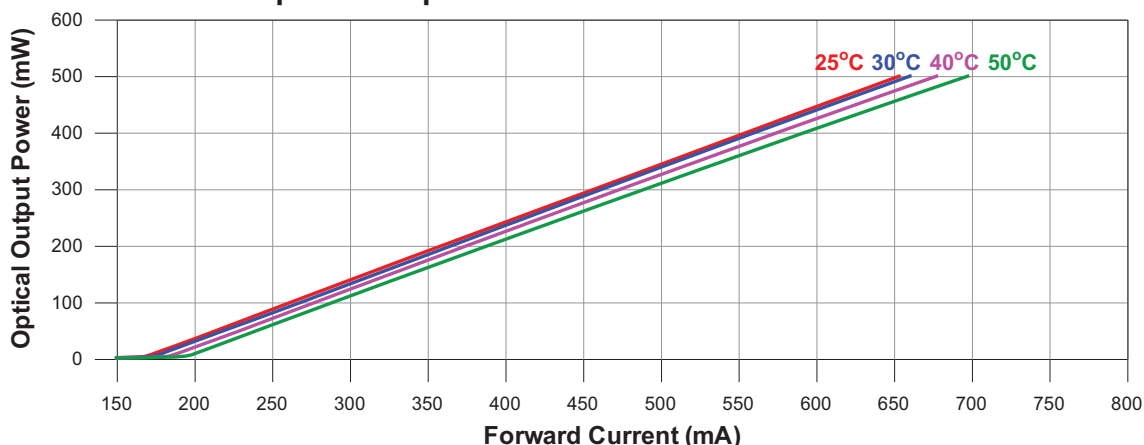
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Units	
Threshold Current	I _{th}	-	-	170	190	mA	
Operating Current	I _{op}	P _o =500mW	-	660	720	mA	
Operating Voltage	V _{op}	-	-	1.95	2.2	Volts	
Slope Efficiency	η	375mW-125mW	-	1.00	-	mW/mA	
		I _{375mW} -I _{125mW}					
Monitor Current	I _m	P _o =500mW	0.1	0.85	2	mA	
Beam Divergence (FWHM)	Parallel	θ //	P _o =500mW	-	12	17	deg.
	Perpendicular	θ ⊥	P _o =500mW	-	17	22	deg.
Lasing Wavelength*	λ	P _o =500mW	820	830	840	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

