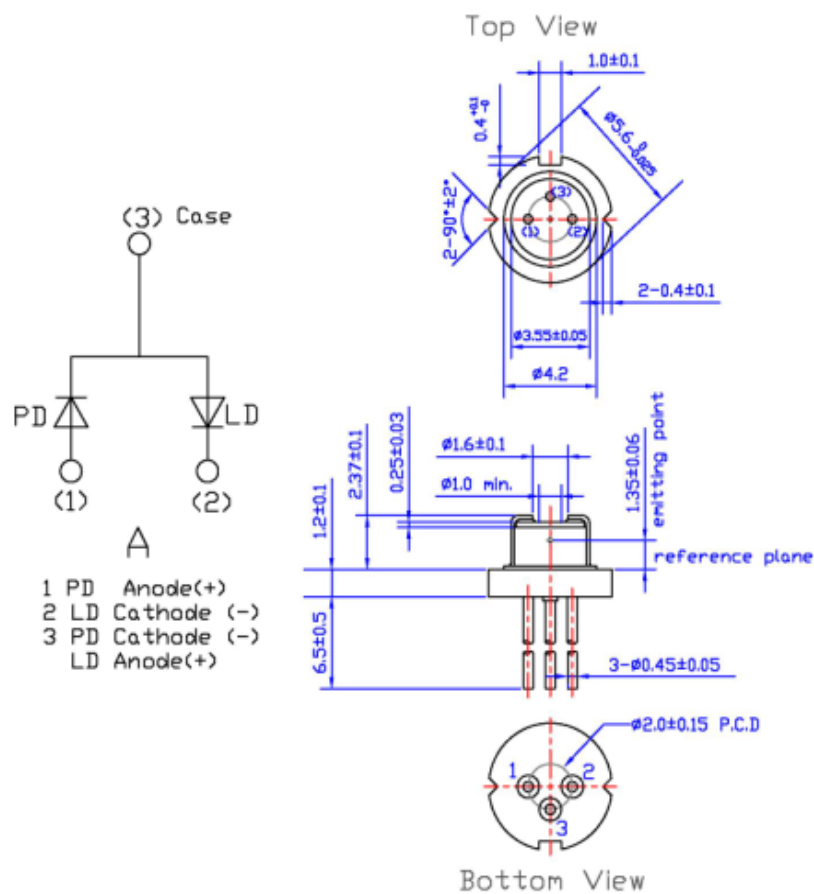


650 nm Red Laser Diode LCU652051A-preliminary

■ 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	Symbol	Value	Unit	
Optical Output	P_o	20	mW	
Reverse Voltage	Laser	V_r	2	V
	PIN PD	$V_r(\text{PIN})$	30	V
Operating Temperature	T_{op}	-10 ~ +50	$^\circ\text{C}$	
Storage Temperature	T_{stg}	-15 ~ +85	$^\circ\text{C}$	

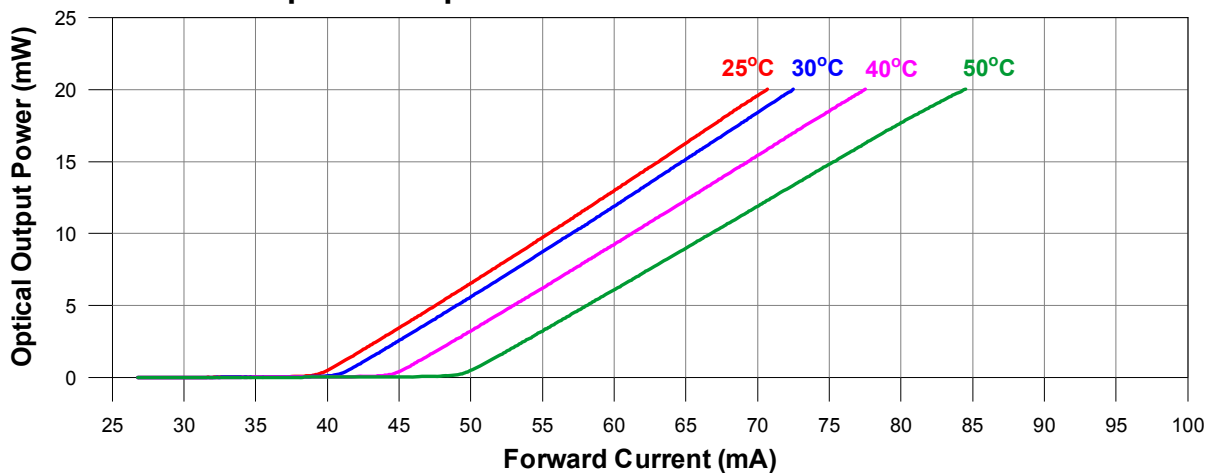
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	P _o =20mW	-	42	50	mA	
Operating Current	I _{op}	P _o =20mW	-	75	80	mA	
Operating Voltage	V _{op}	-	-	2.2	2.4	Volt	
Slope Efficiency	η	20mW-5mW	0.5	0.65	-	mW/mA	
		I _{20mW} -I _{5mW}					
Beam Divergence (FWHM)	Parallel	$\theta //$	P _o =20mW	7	8	9.5	deg.
	Perpendicular	$\theta \perp$	P _o =20mW	-	30	35	deg.
Lasing Wavelength	λ	P _o =20mW	650	660	665	nm	

© $\theta //$ and $\theta \perp$ 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

