

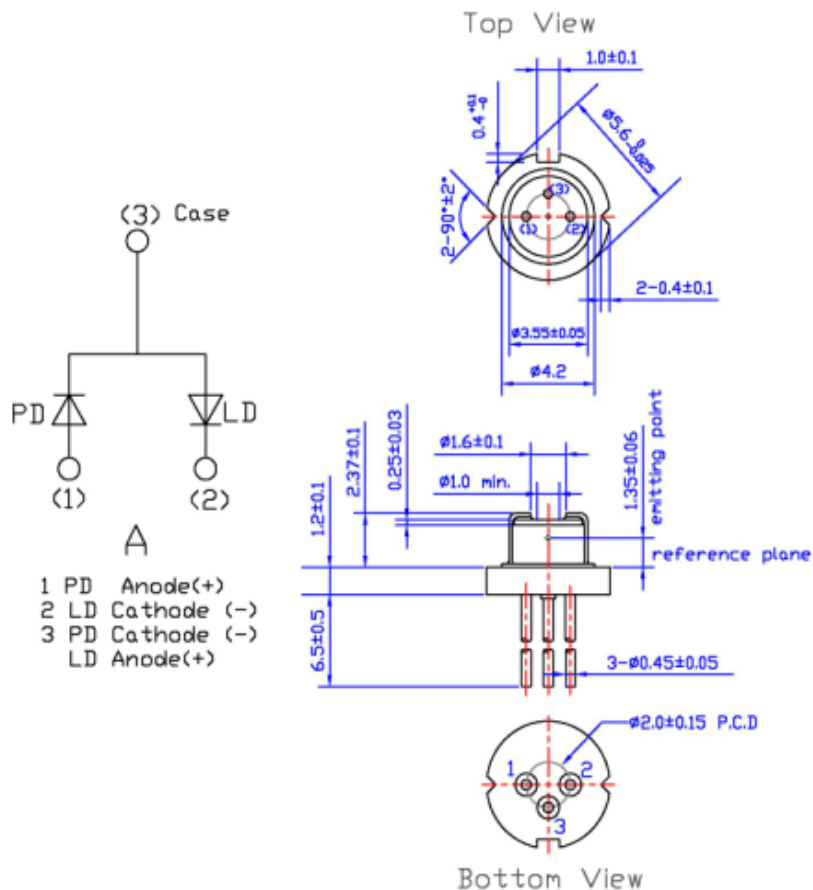
980nm Laser Diode

980nm Laser Diode LCU98B041A-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	Rating	Unit
Optical Output	Po	200	mW
Reverse Voltage	Laser	Vr	2 V
	PIN PD	Vr(PIN)	30 V
Operating Temperature	Top	-10 ~ +40	$^{\circ}\text{C}$
Storage Temperature	Tstg	-15 ~ +85	$^{\circ}\text{C}$

Ver.2 2009/09

980nm Laser Diode

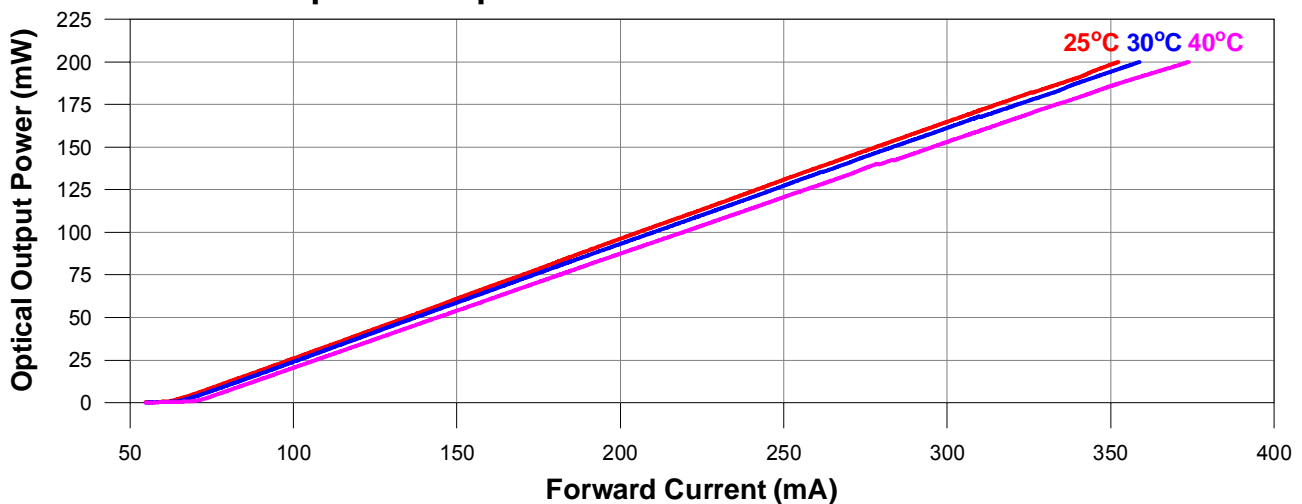
Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	-	-	60	80	mA	
Operating Current	I _{op}	P _o =200mW	-	355	400	mA	
Operating Voltage	V _{op}	-	1	1.5	2.1	Volt	
Slope Efficiency	η	150mW-50mW	0.5	0.7	-	mW/mA	
		I _{150mW} -I _{50mW}					
Monitor Current	I _m	P _o =200mW	-	1.5	2.5	mA	
Beam Divergence (FWHM)	Parallel	$\theta //$	P _o =200mW	-	6	-	deg.
	Perpendicular	$\theta \perp$	P _o =200mW	27	30	37	deg.
Lasing Wavelength	λ	P _o =200mW	970	980	990	nm	

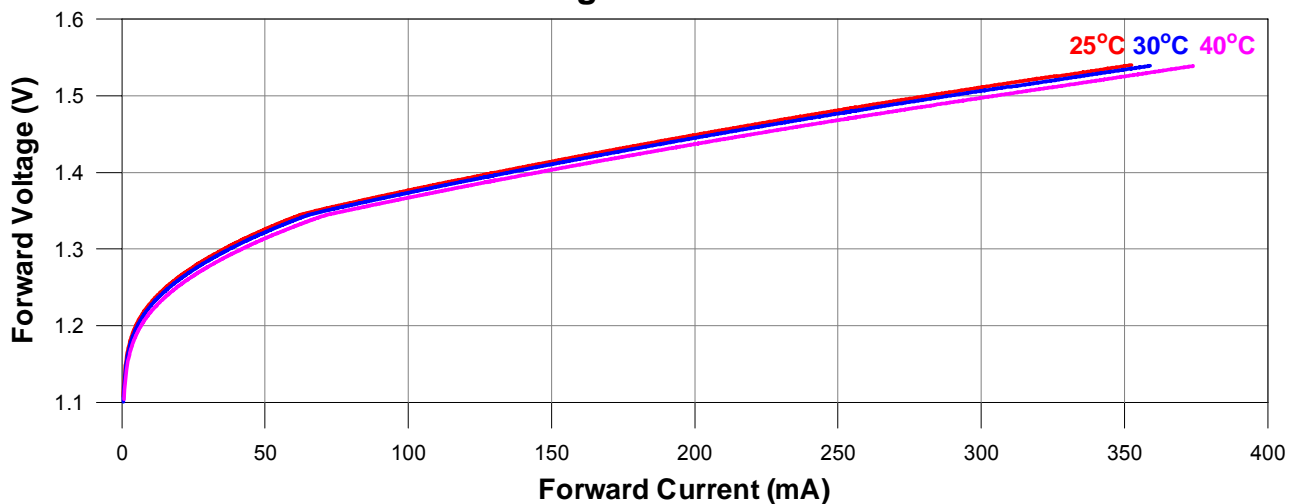
⊙ $\theta \perp$ are defined as the angle within which the intensity is 50% of the peak value.

Typical characteristic curves

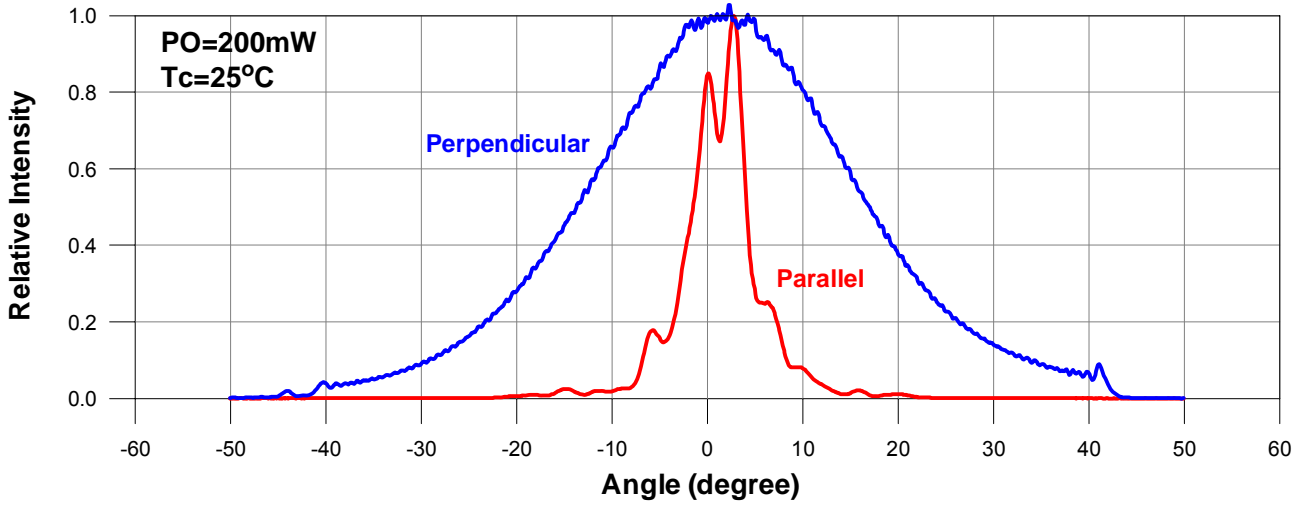
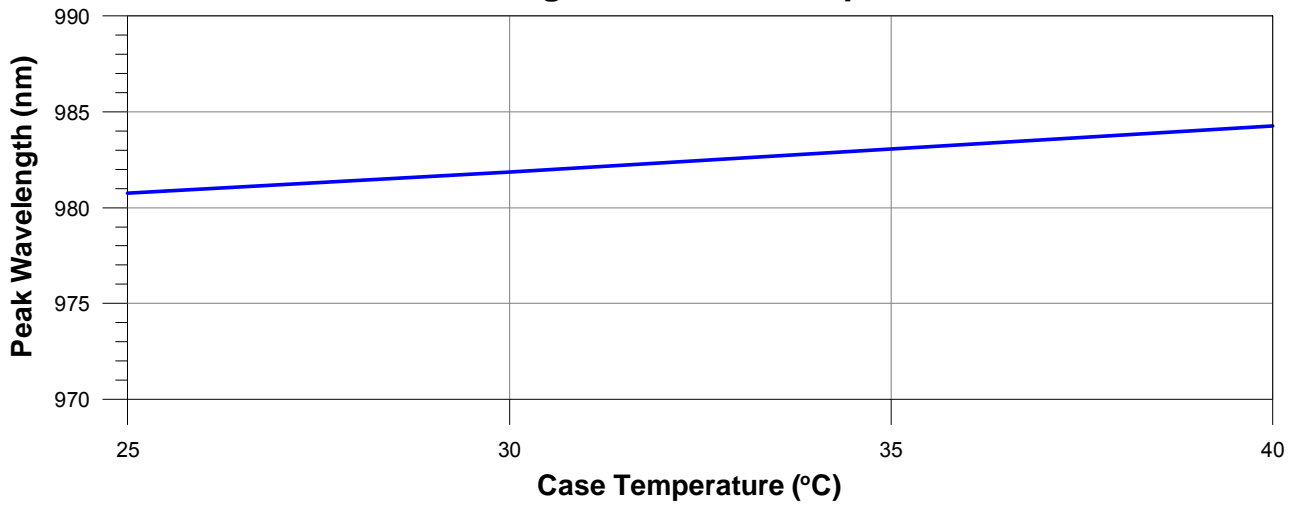
Optical Output Power v.s. Forward Current



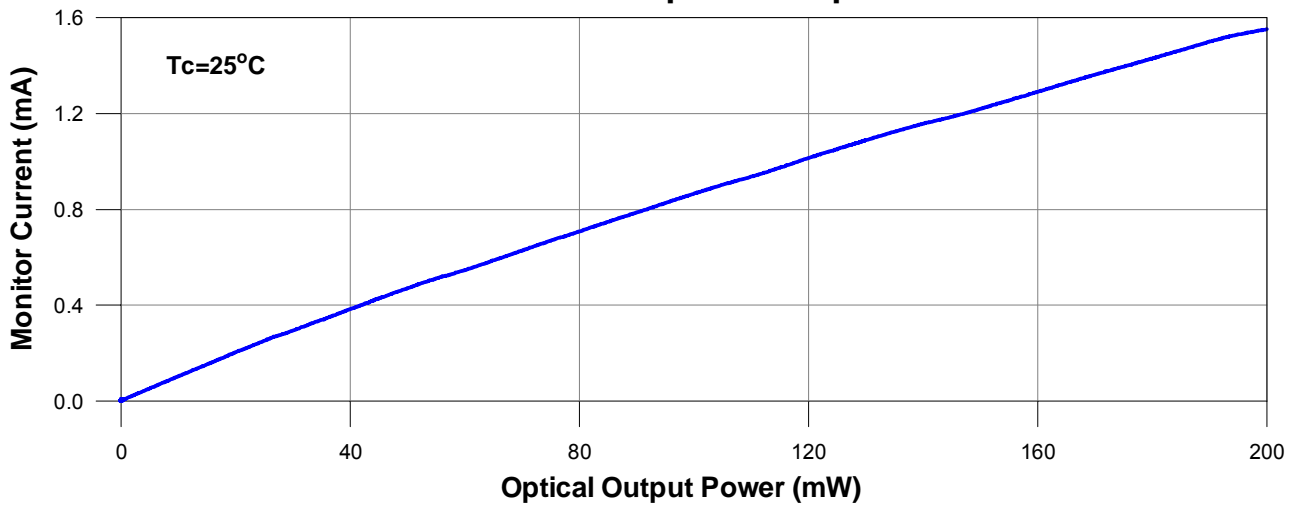
Forward Voltage v.s. Forward Current



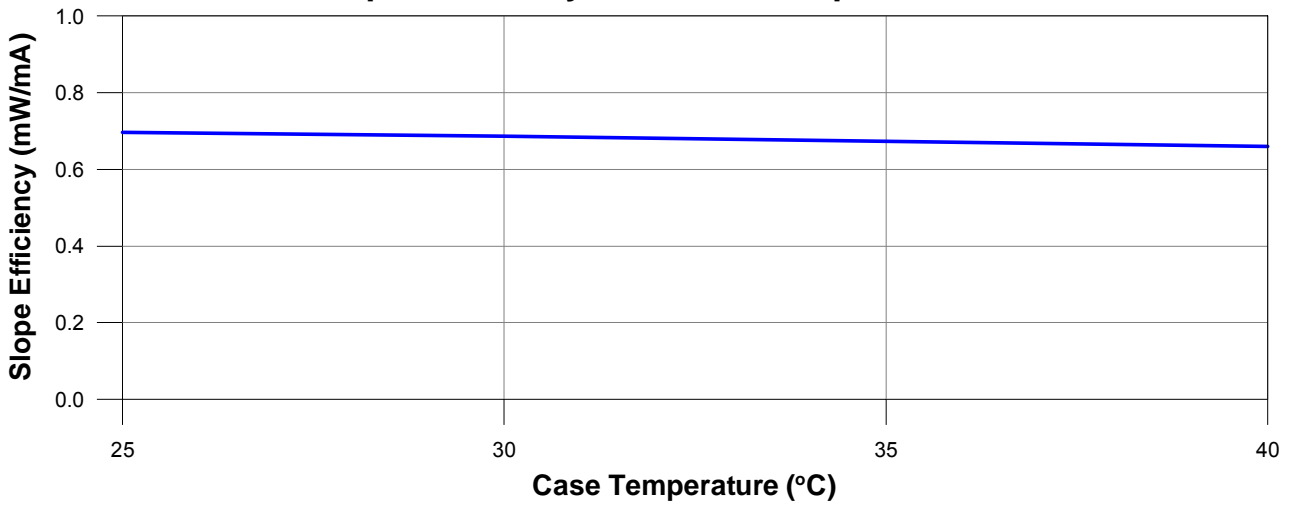
Peak Wavelength v.s. Case Temperature



Monitor Current v.s. Optical Output Power



Slope Efficiency v.s. Case Temperature



Threshold Current v.s. Case Temperature

