

850nm Laser Diode

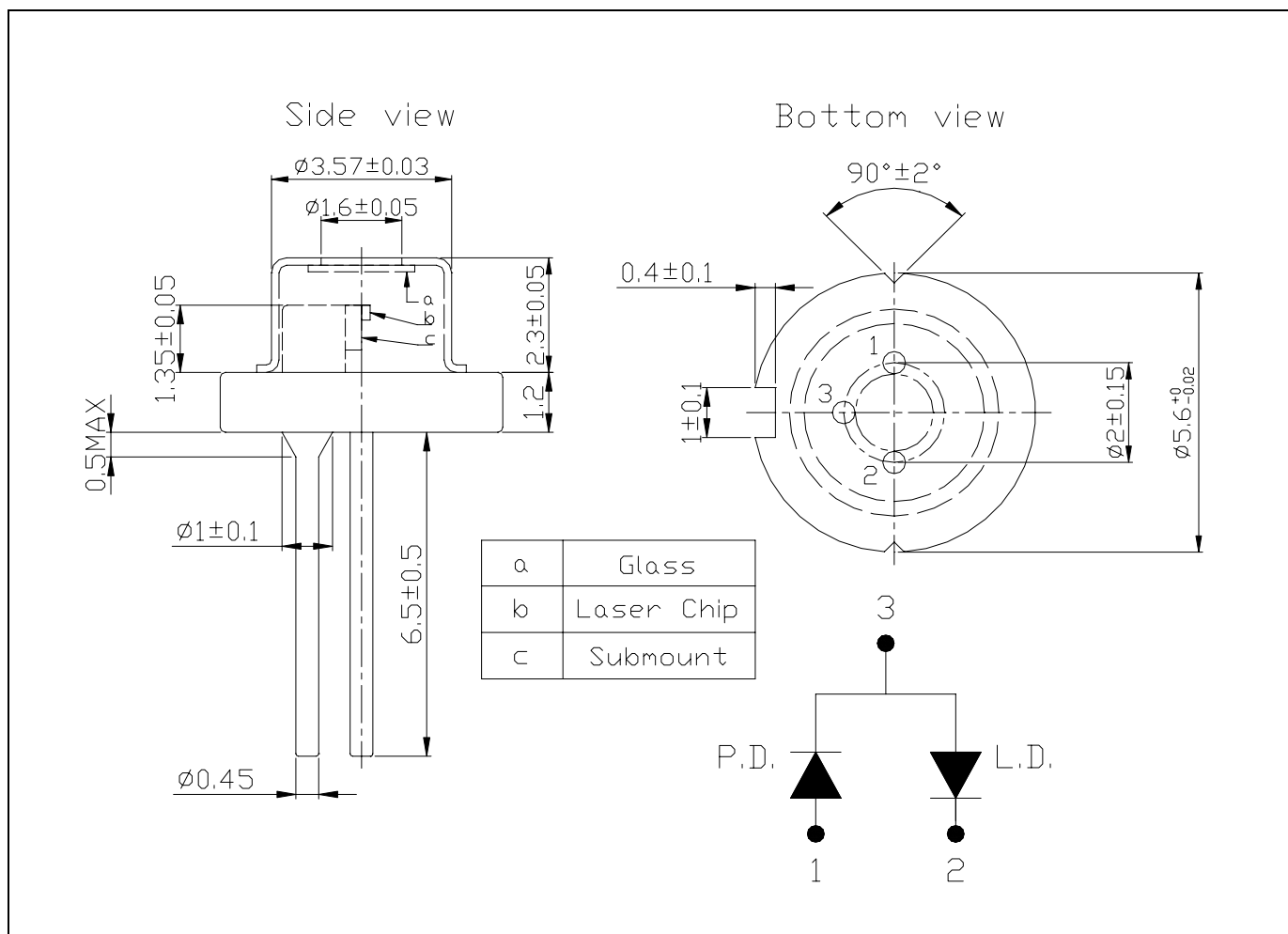
RLD85000010

■ 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	10	mW
Reverse Voltage	Vr	2	V
Operating Temperature	Top	-10~+60	$^\circ\text{C}$
Storage Temperature	Tstg	-15~+85	$^\circ\text{C}$

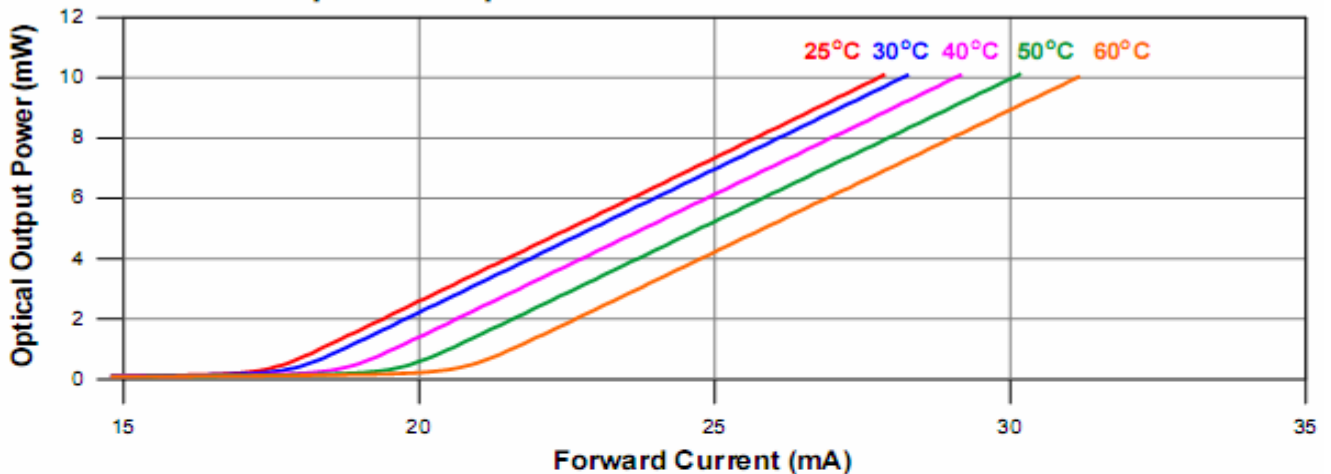
Electrical and Optical Characteristics (T_c=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	-	-	17	23	mA	
Operating Current	I _{op}	P _o =10mW	-	28	38	mA	
Operating Voltage	V _{op}	-	-	1.7	2.1	Volt	
Slope Efficiency	η	7.5mW-2.5mW	0.5	0.8	-	mW/mA	
		I _{7.5mW} -I _{2.5mW}					
Monitor Current	I _m	P _o =10mW	0.05	0.3	1	mA	
Beam Divergence (FWHM)	Parallel	θ //	P _o =10mW	-	10	-	deg.
	Perpendicular	θ ⊥	P _o =10mW	-	35	-	deg.
Lasing Wavelength	λ	P _o =10mW	830	840	850	nm	

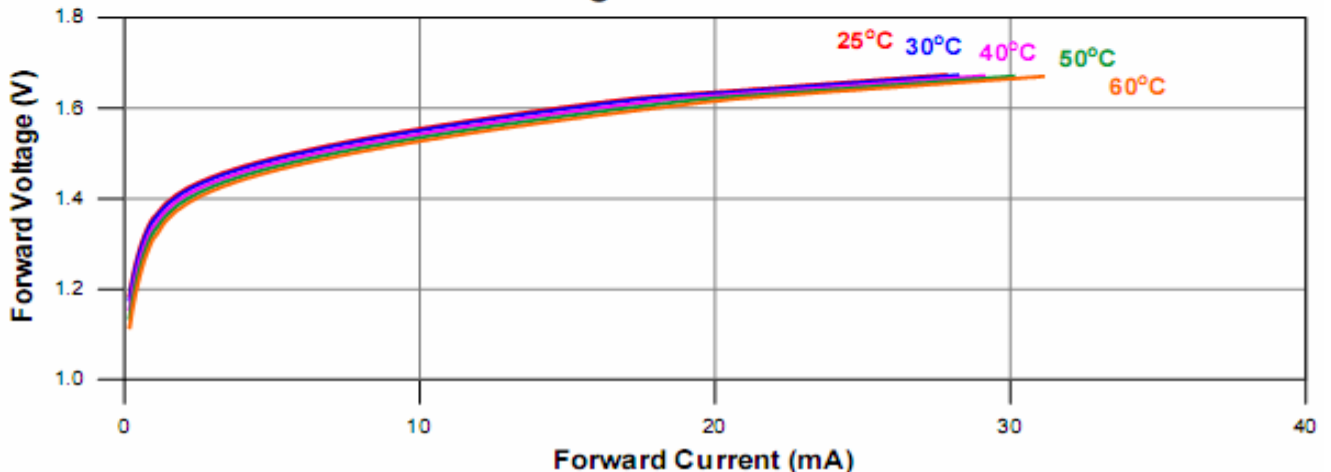
⊙θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

Typical characteristic curves

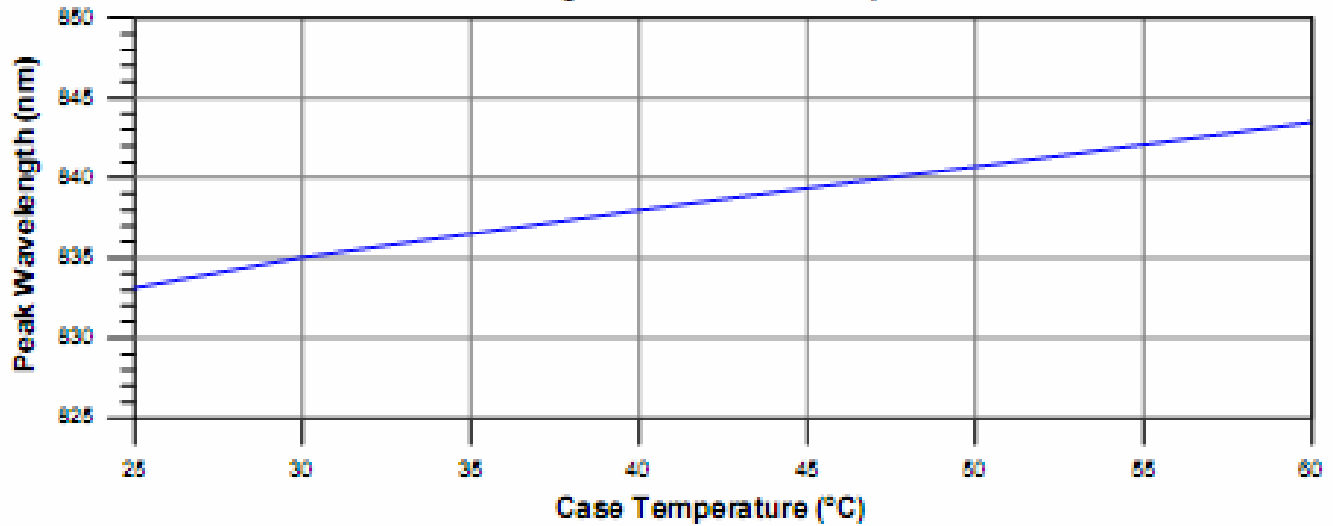
Optical Output Power v.s. Forward Current



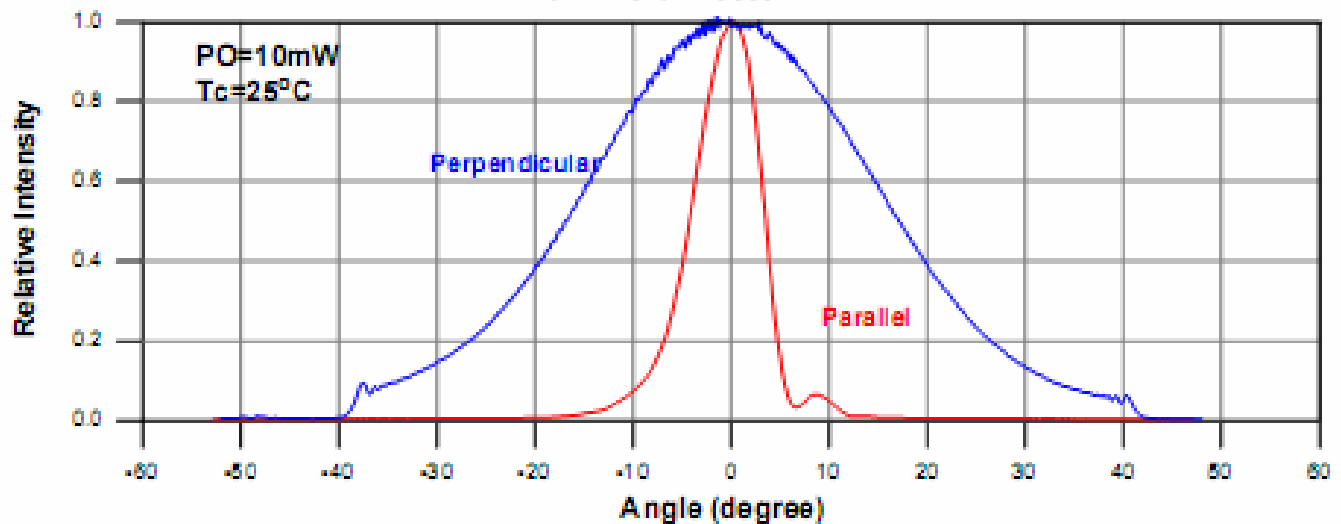
Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature



Far-Field Pattern



Monitor Current v.s. Optical Output Power

