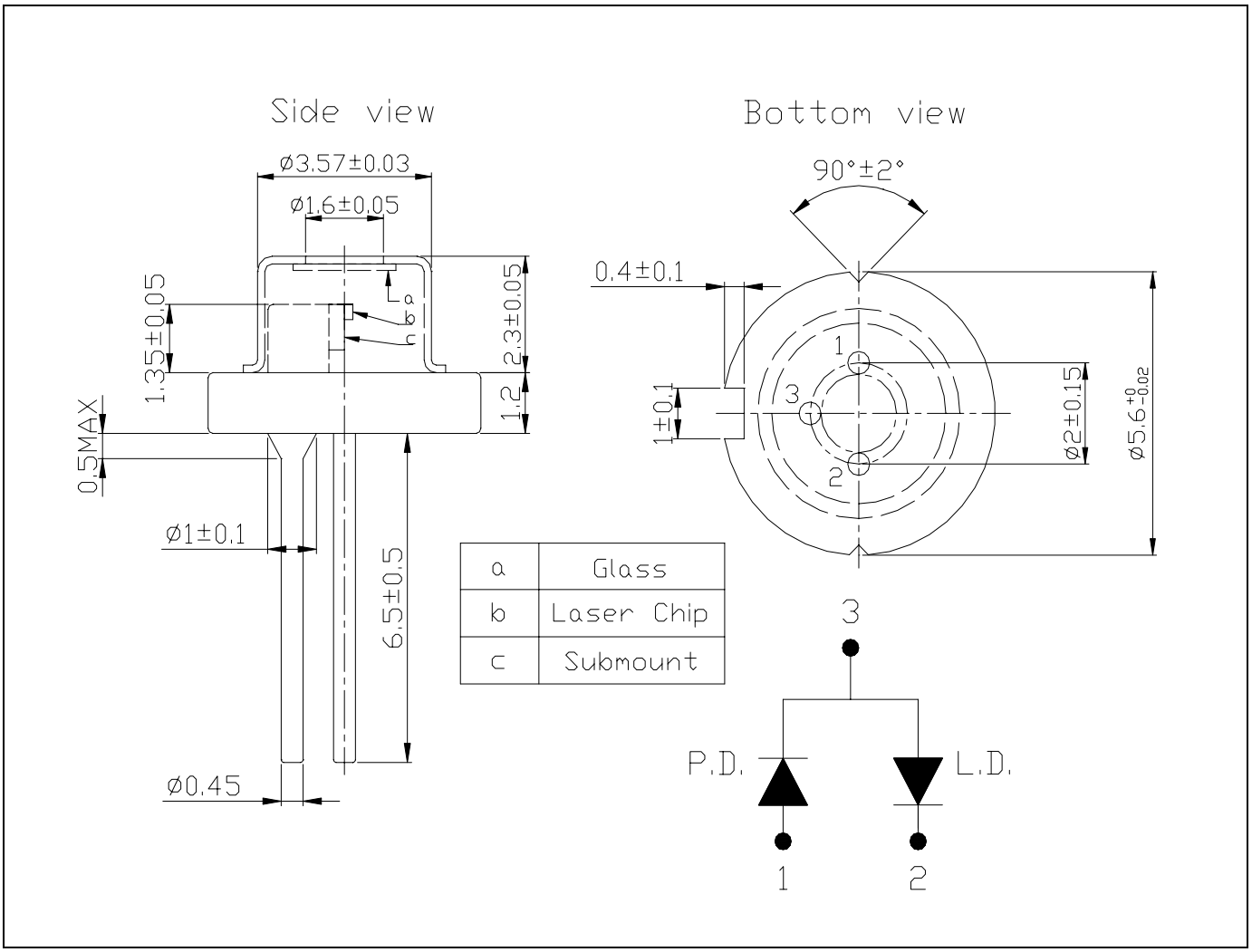
850nm Laser Diode
RLD85000050

■Specifications

(1) Device: Laser Diode

(2) Structure: TO-18(ϕ 5.6mm)

■External dimensions(Unit : mm)



■Absolute Maximum Ratings(Tc=25℃)

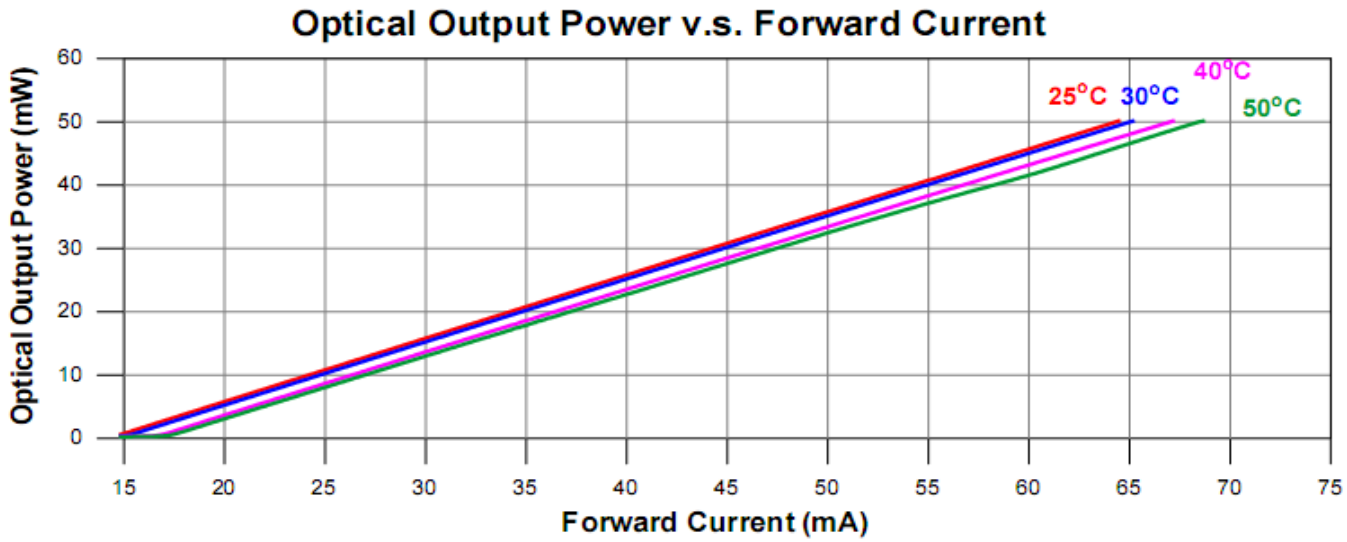
Parameter	Symbol	Rating	Unit
Optical Output	Po	**50**	mW
Reverse Voltage	Vr	**2**	V
Operating Temperature	Top	-10～+50	℃
Storage Temperature	Tstg	-15～+85	℃

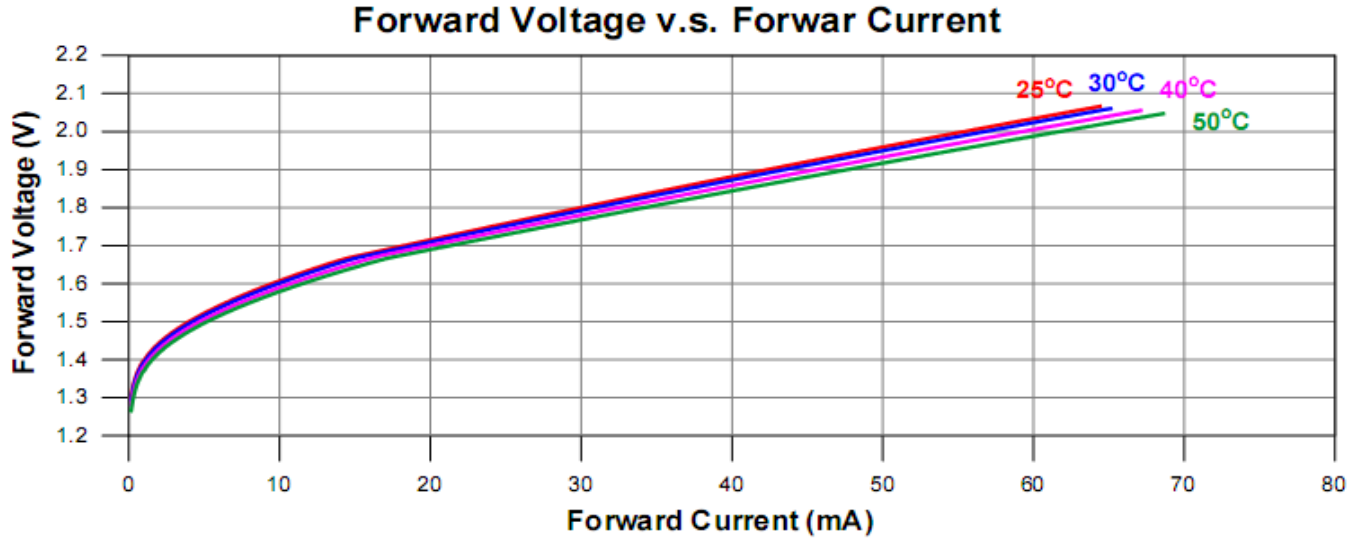
■Electrical and Optical Characteristics(Tc=25℃)

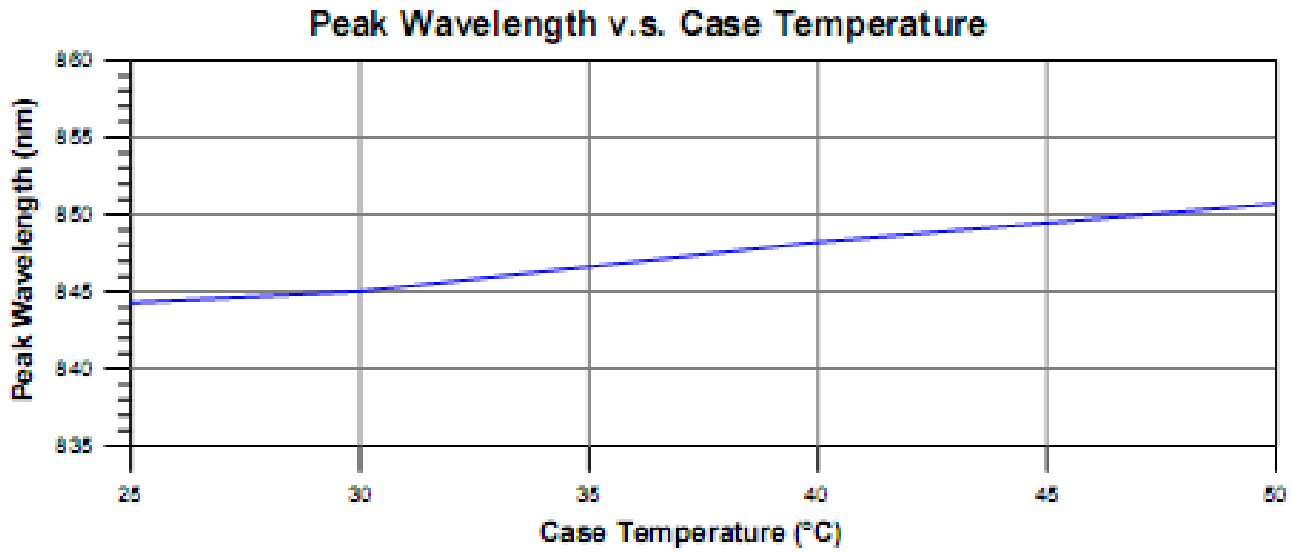
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	-	-	**16**	**20**	mA
Operating Current		Iop	Po=50mW	-	**68**	**85**	mA
Operating Voltage		Vop	-	-	**2.1**	**2.3**	Volt
Slope Efficiency		η	37.5mW-12.5mW / I37.5mW-I12.5mW	-	**0.95**	-	mW/mA
Monitor Current		Im	Po=50mW	**0.05**	**0.13**	**0.5**	mA
Beam Divergence (FWHM)	Parallel	θ //	Po=50mW	-	**11**	**16**	deg.
	Perpendicular	θ ⊥	Po=50mW	-	**18**	**23**	deg.
Lasing Wavelength		λ	Po=50mW	**840**	**850**	**860**	nm

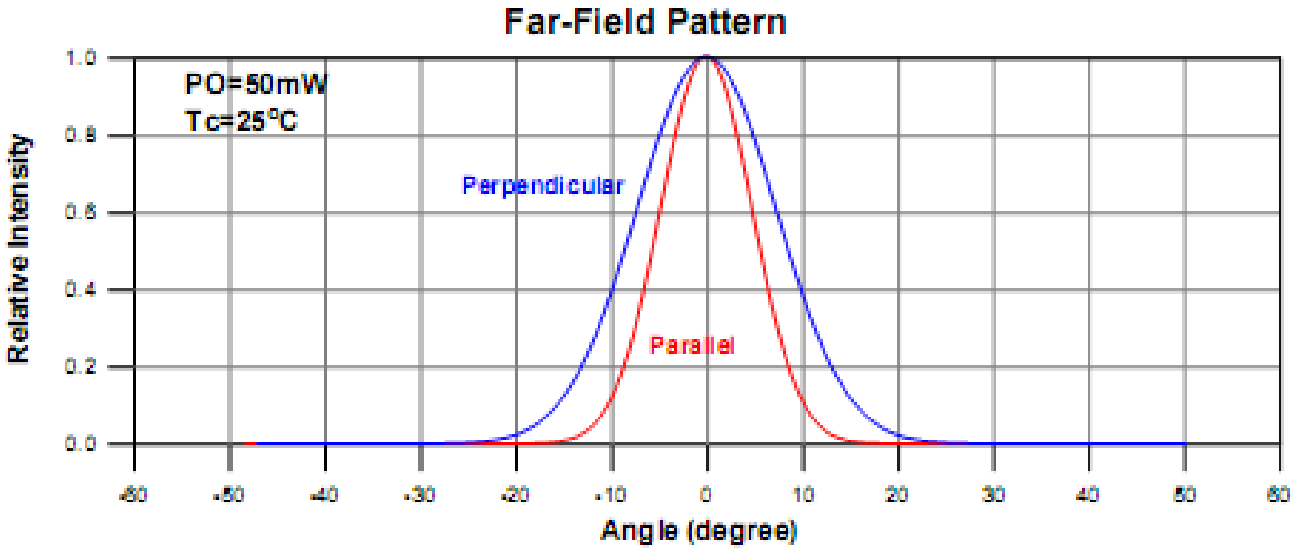
◎θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

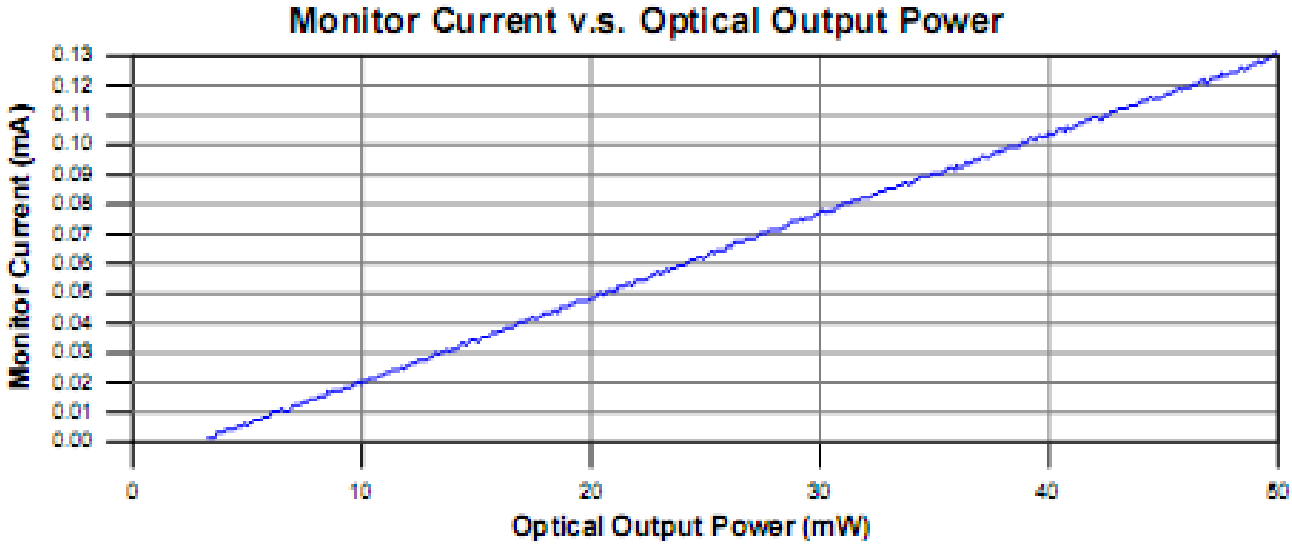
■Typical characteristic curves

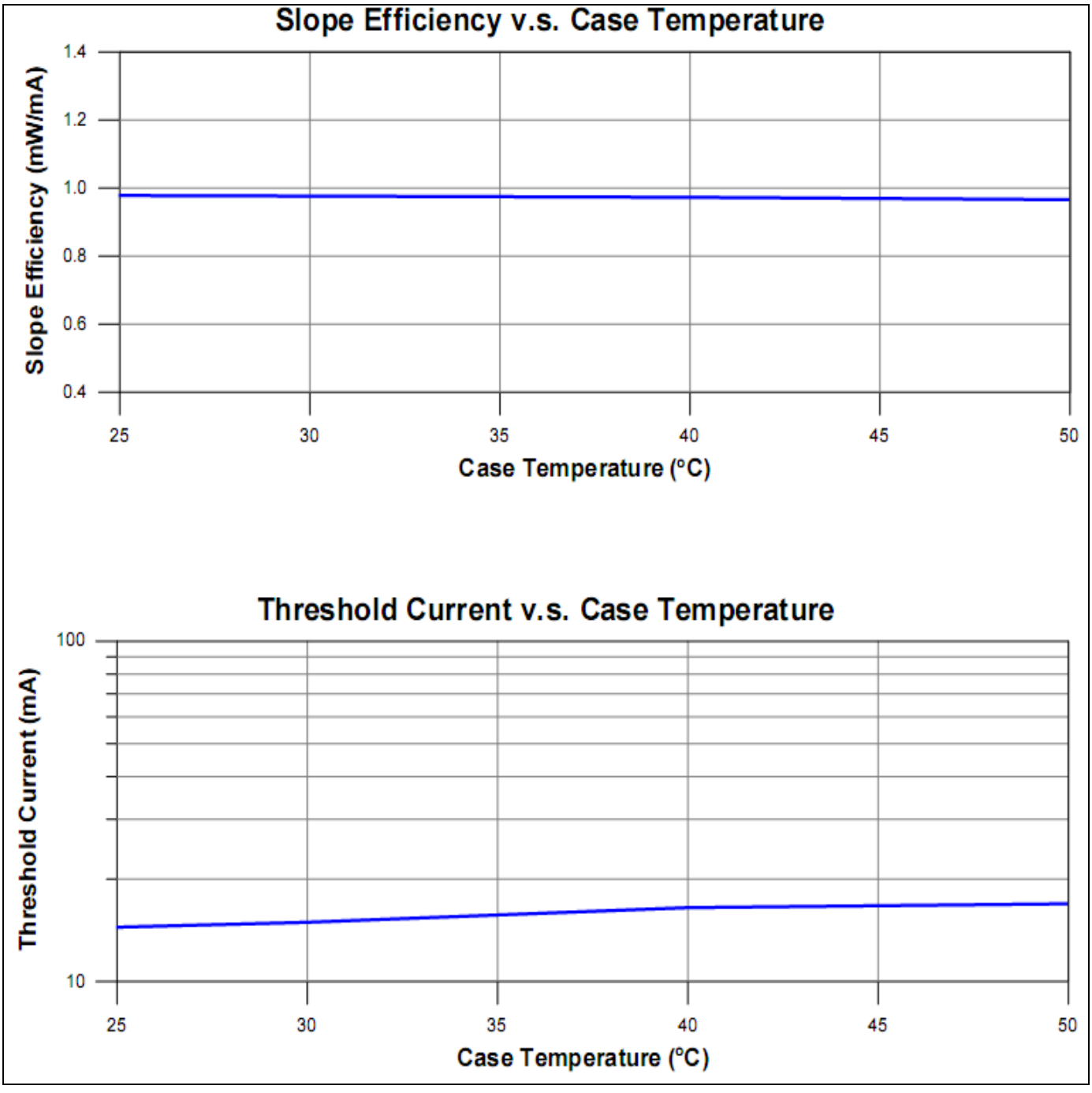





Peak Wavelength v.s. Case Temperature
Peak Wavelength (nm)
860
855
850
845
840
835
25
30
35
40
45
50
Case Temperature (°C)


Far-Field Pattern
PO=50mW
Tc=25°C
Perpendicular
Parallel
Relative Intensity
1.0
0.8
0.6
0.4
0.2
0.0
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
Angle (degree)


Monitor Current v.s. Optical Output Power
Monitor Current (mA)
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0
10
20
30
40
50
Optical Output Power (mW)



Shenzhen Ruixinfeng Electronics Technology Co., LTD *www.ruixinfeng.com*
TEL:0755-29163600 29163800 *FAX: 0755-29163900* *E-mail:yangbao4913@vip.sina.com*