

850nm Laser Diode

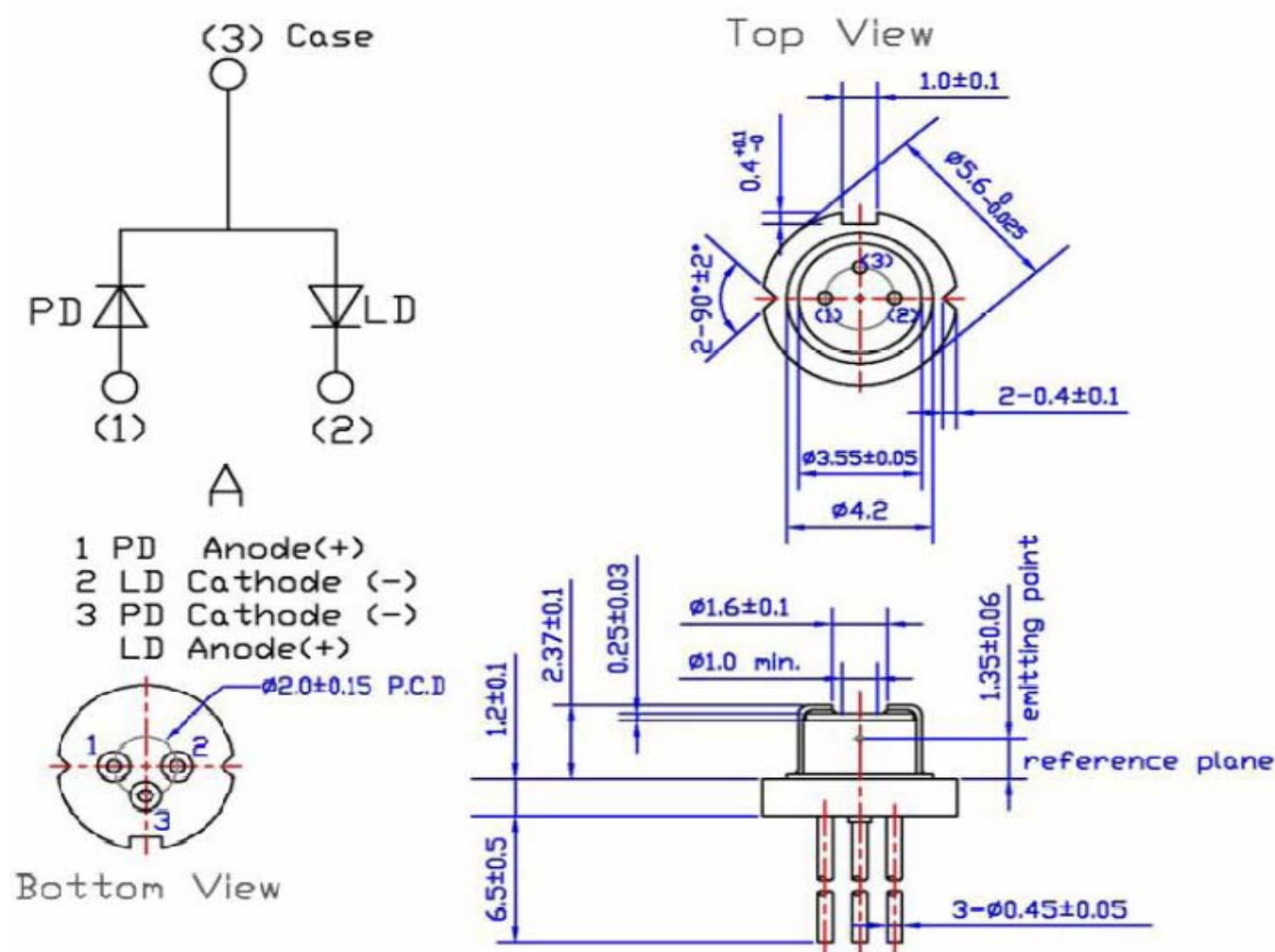
RLD85000300

Specifications

(1) Device: Laser Diode

(2) Structure: TO-18(ϕ 5.6mm)

External dimensions(Unit : mm)



Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

Parameter		Symbols	Ratings	Units
Optical Output		Po	300	mW
Reverse Voltage	Laser	Vr	2	V
	PIN PD	Vr(PIN)	30	V
Operating Temperature		Top	-10~+50	$^\circ\text{C}$
Storage Temperature		Tstg	-40~+85	$^\circ\text{C}$

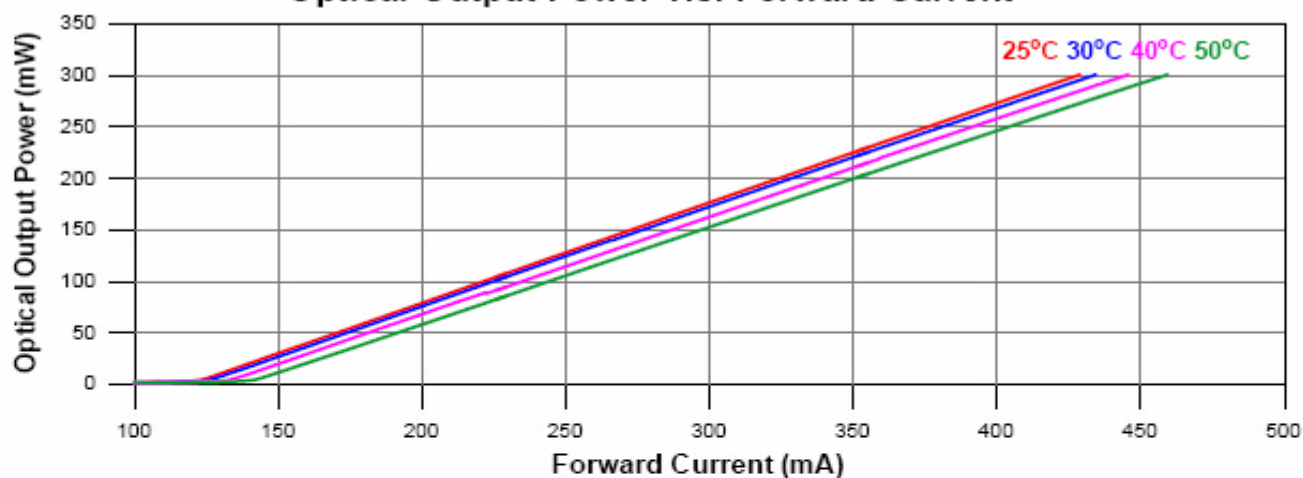
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter		Symbols	Conditions	Min.	Typ.	Max.	Units
Threshold Current		I _{th}	-	-	115	130	mA
Operating Current		I _{op}	P _o =300mW	-	435	470	mA
Operating Voltage		V _{op}	-	-	1.85	2	Volts
Slope Efficiency		η	225mW-75mW	-	0.95	-	mW/mA
			I _{225mW} -I _{75mW}				
Monitor Current		I _m	P _o =300mW	0.1	0.6	-	mA
Beam Divergence (FWHM)	Parallel	θ //	P _o =300mW	-	12	17	deg.
	Perpendicular	θ ⊥	P _o =300mW	-	18	23	deg.
Lasing Wavelength*		λ	P _o =300mW	840	850	860	nm

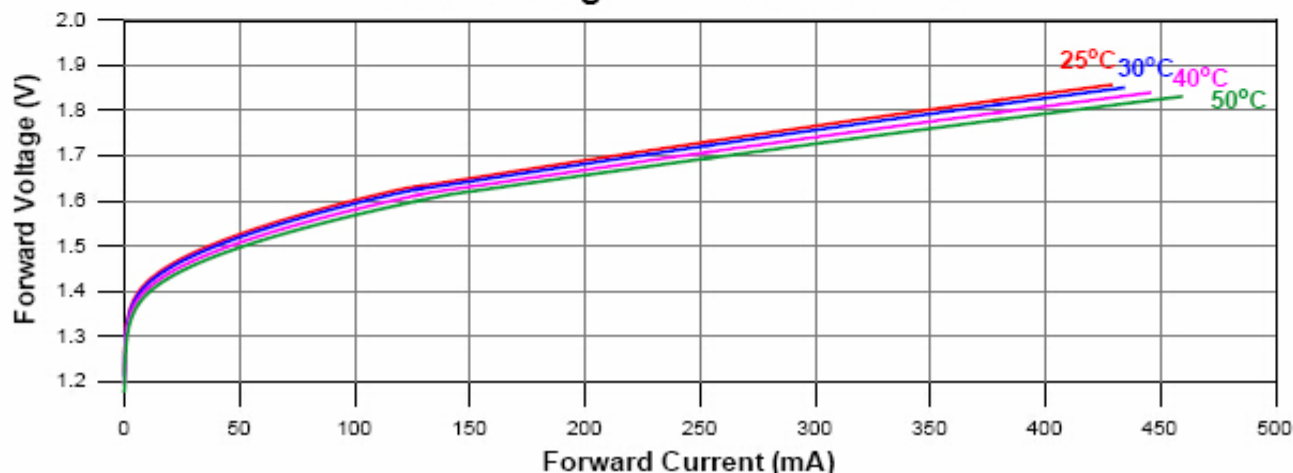
◎ $\theta //$ and $\theta \perp$ are defined as the angle within which the intensity is 50% of the peak value.

■ Typical characteristic curves

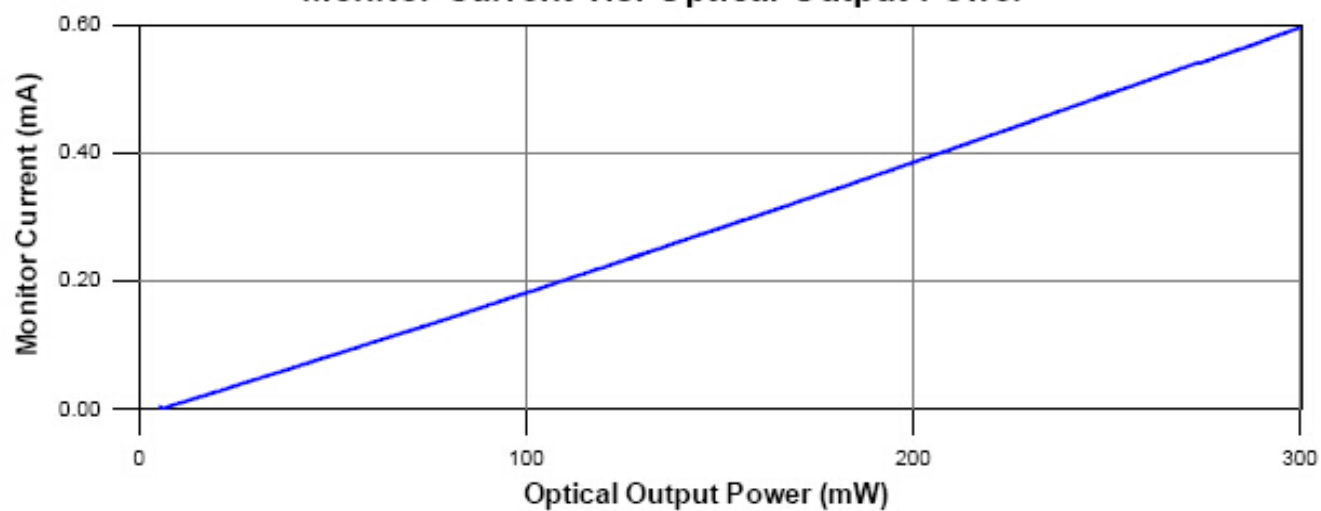
Optical Output Power v.s. Forward Current



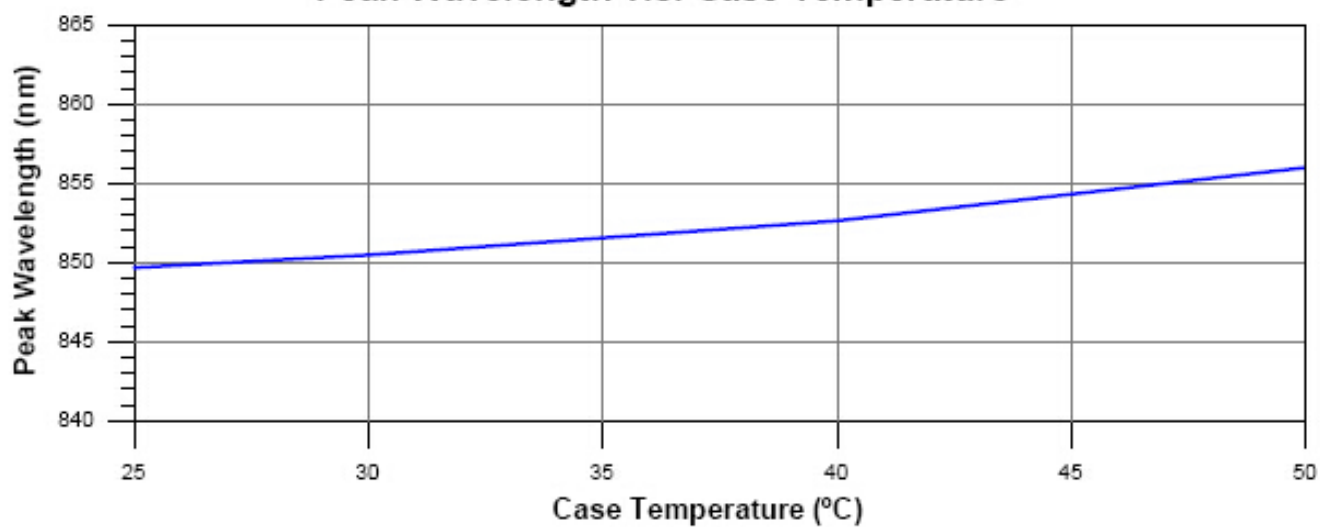
Forward Voltage v.s. Forward Current



Monitor Current v.s. Optical Output Power



Peak Wavelength v.s. Case Temperature



Far-Field Pattern

