

635nm Red Laser Diode0

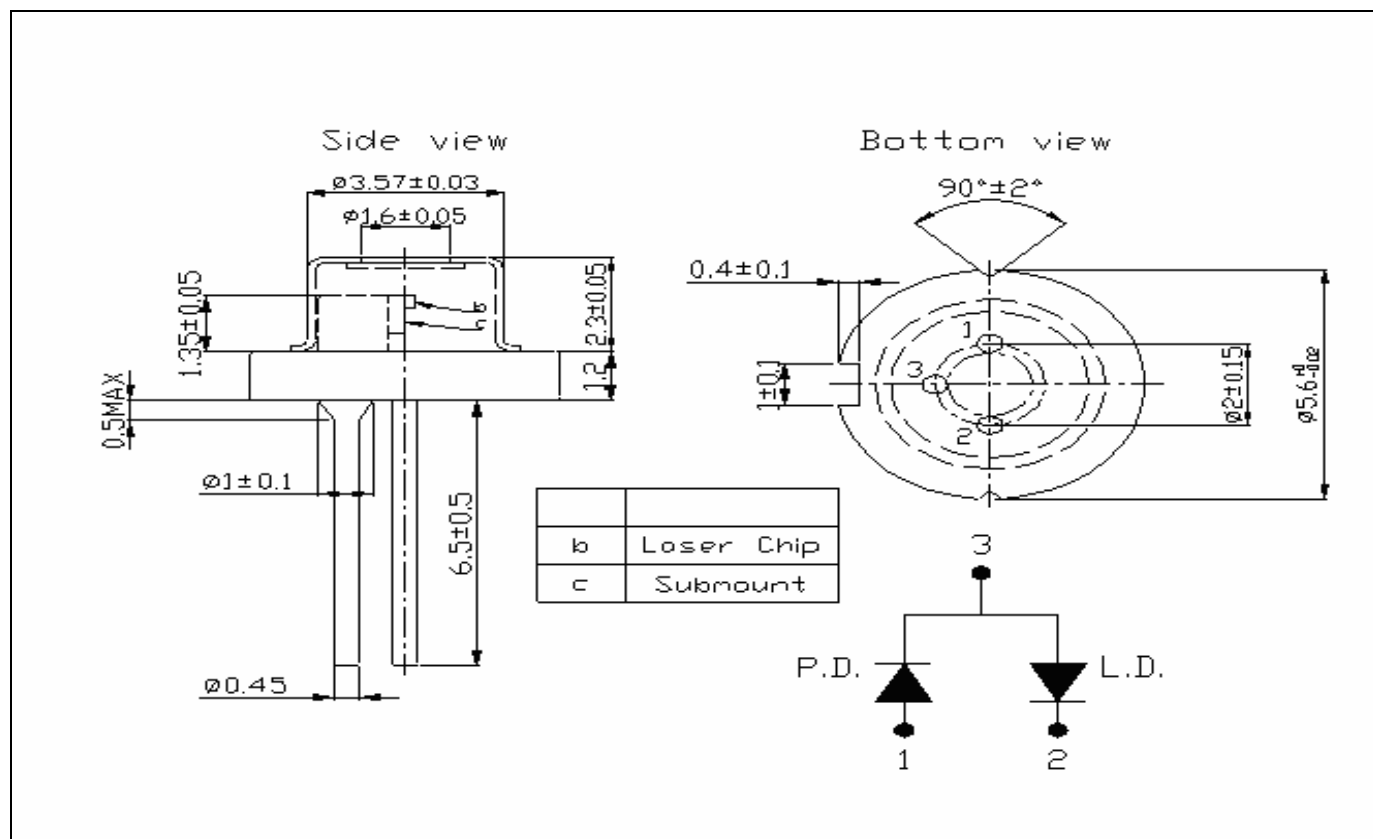
RLD63500201

■ 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		Symbol	Value	Unit
Optical Output		Po	20	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	$^\circ\text{C}$

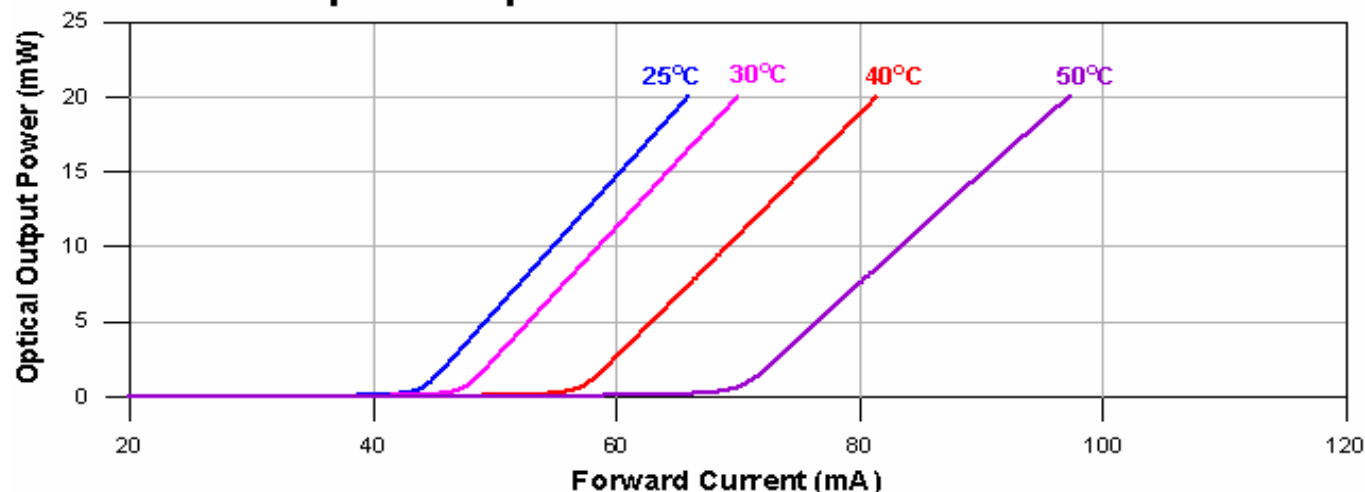
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	P _o =20mW	-	50	55	mA
Operating Current	I _{op}	P _o =20mW	-	70	85	mA
Operating Voltage	V _{op}	-	-	2.3	2.4	Volts
Slope Efficiency	η	15mW-5mW	0.5	0.8	-	mW
		I _{15mW} -I _{5mW}				mA
Monitor Current	I _m	P _o =20mW	0.1	0.2	1.0	mA
Beam Divergence (FWHM)	Parallel	$\theta //$	P _o =20mW	5	7.5	deg.
	Perpendicular	$\theta \perp$	P _o =20mW	-	33	deg.
Lasing Wavelength	λ	P _o =20mW	630	639	645	nm

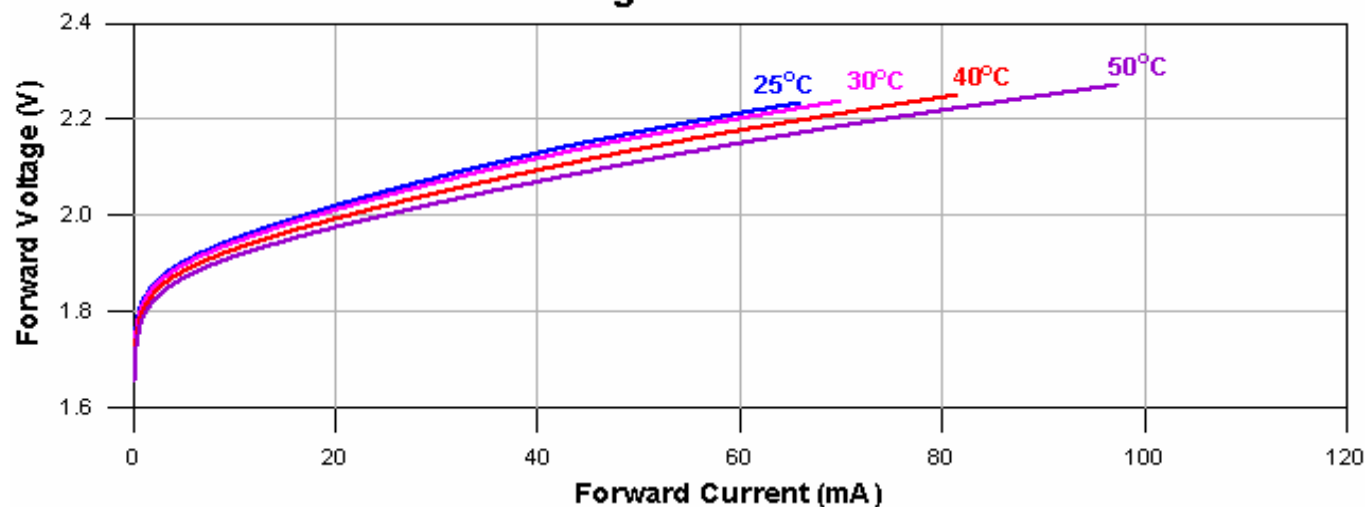
◎ $\theta //$ and $\theta \perp$ are defined as the angle within which the intensity is 50% of the peak value.

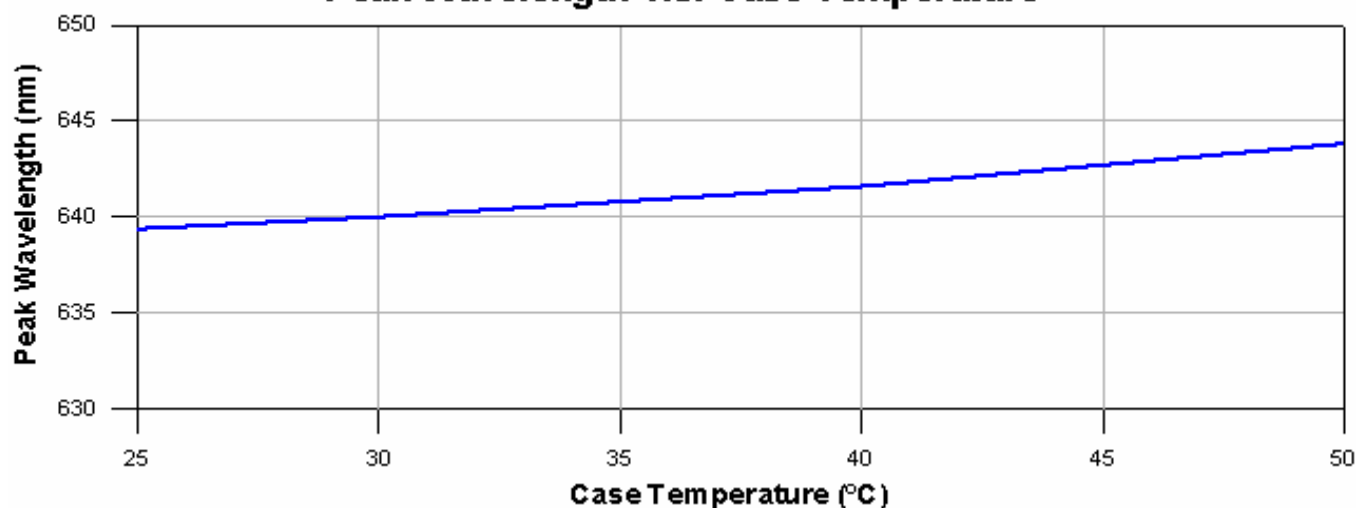
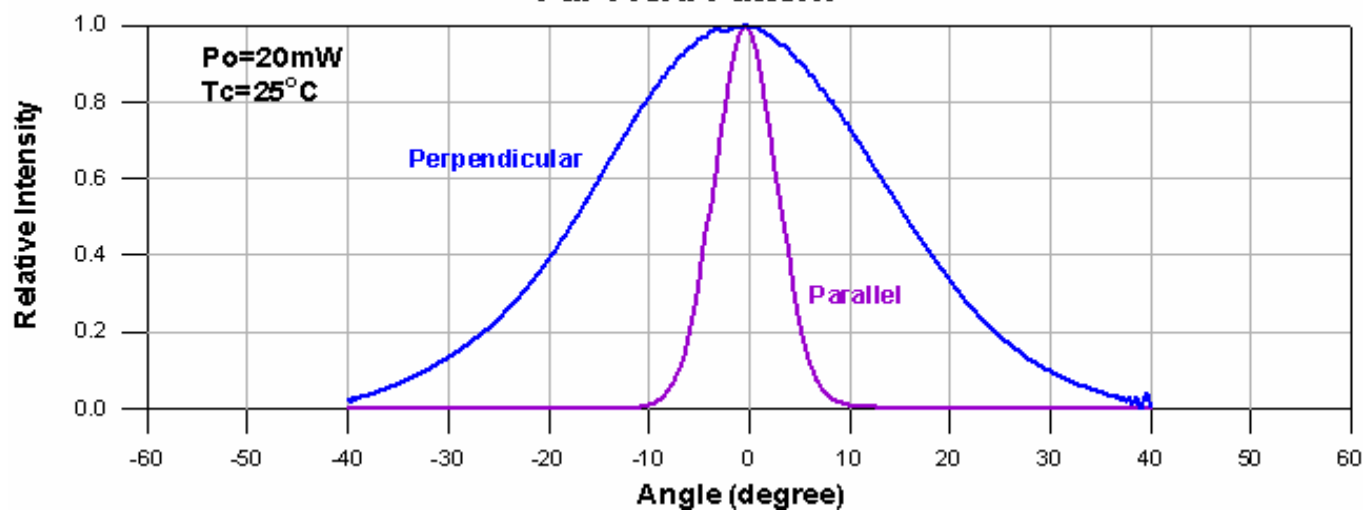
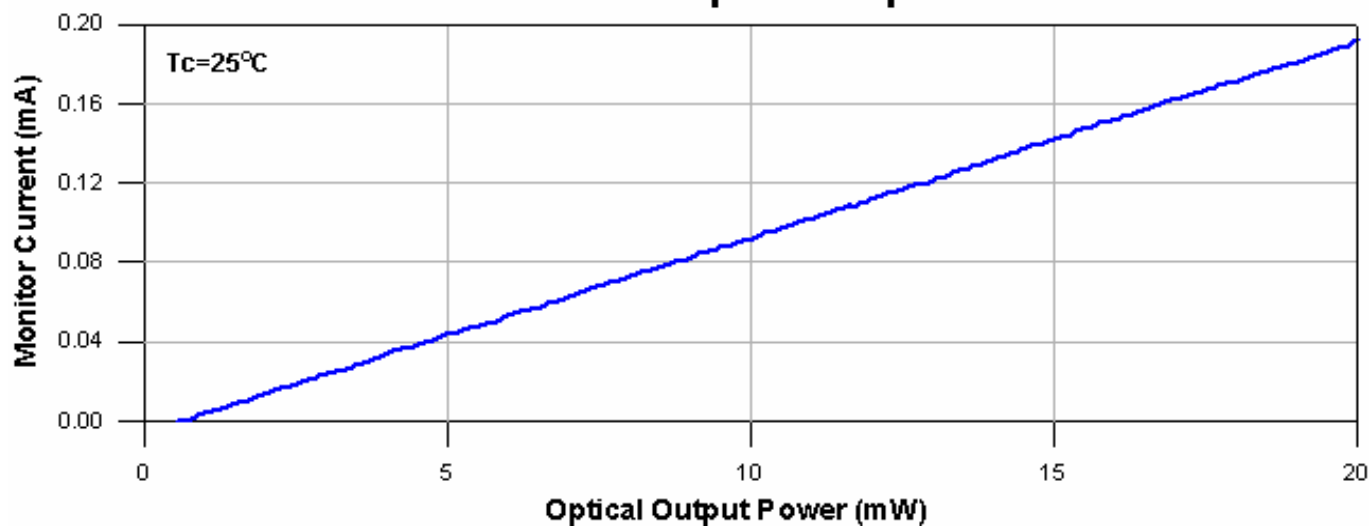
■ Typical characteristic curves

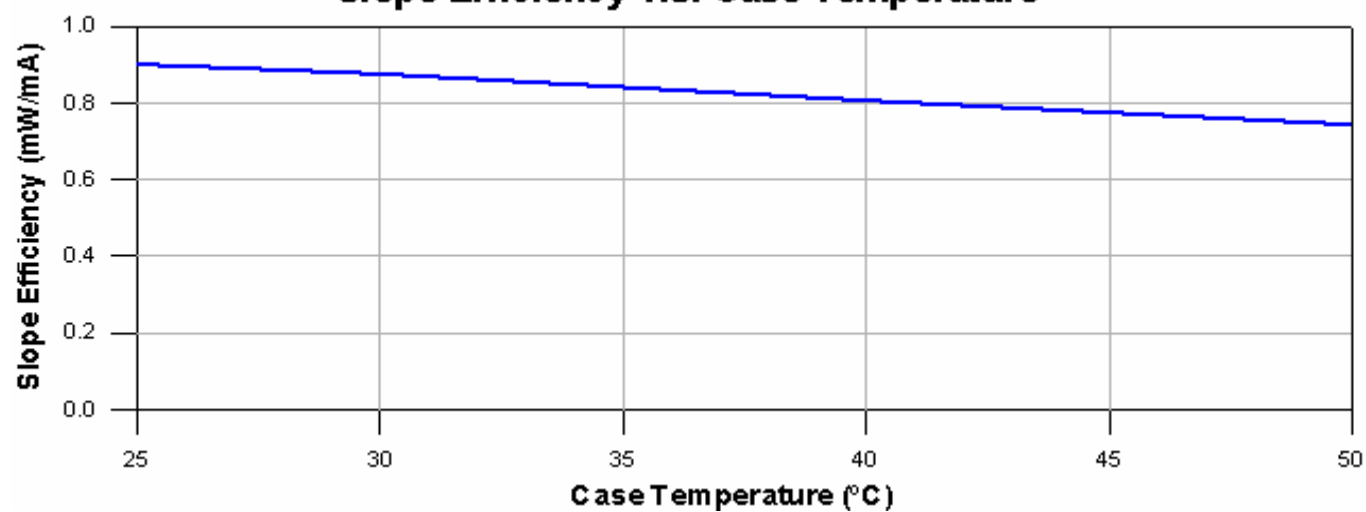
Optical Output Power v.s. Forward Current



Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature**Far-Field Pattern****Monitor Current v.s. Optical Output Power**

Slope Efficiency v.s. Case Temperature**Threshold Current v.s. Case Temperature**