

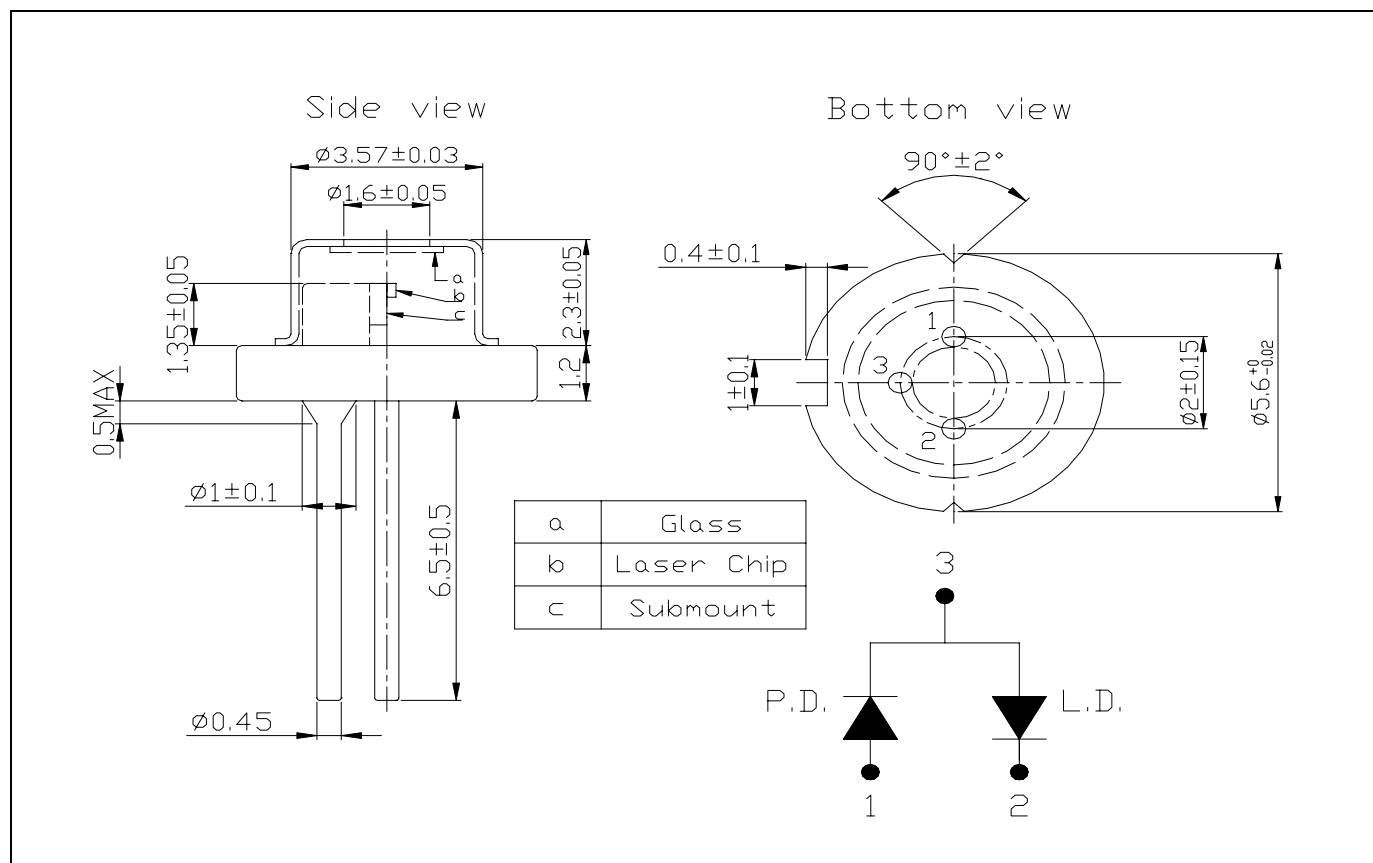
670nm Red Laser Diode RLD67000501

■ 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	Value	Unit
Optical Output		Po	7	mW
Reverse Voltage	Laser	Vr	2	V
	PIN PD	Vr(PIN)	30	V
Operating Temperature		Top	-10~+60	$^\circ\text{C}$
Storage Temperature		Tstg	-15~+85	$^\circ\text{C}$

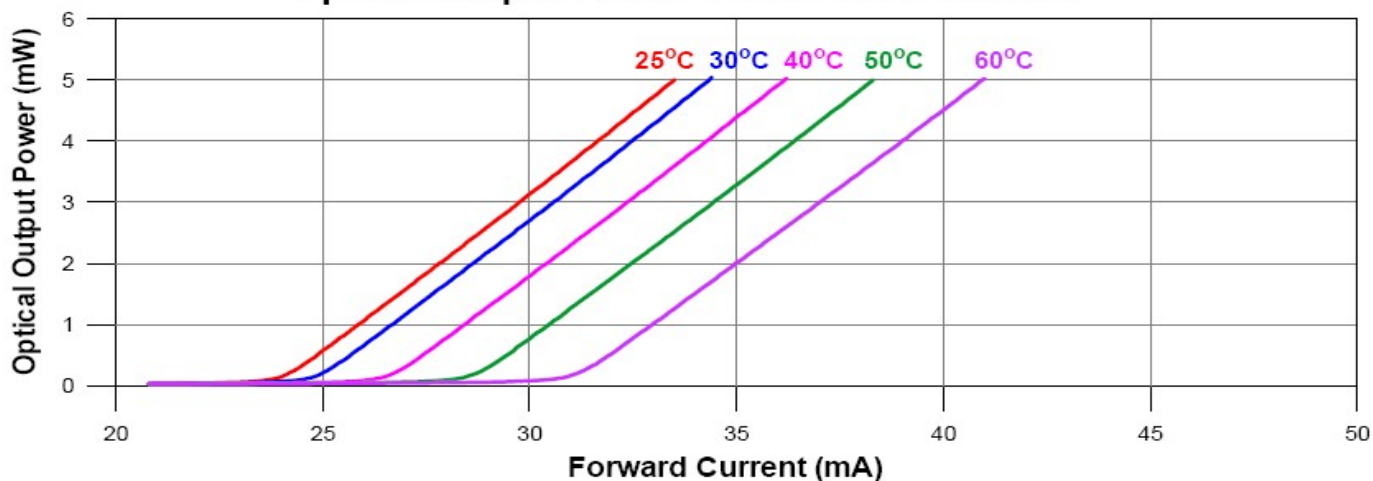
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I _{th}	CW	-	24	35	mA
Operating Current		I _{op}	Po=5mW	-	34	45	mA
Operating Voltage		V _{op}	Po=5mW	-	2.2	2.6	Volt
Slope Efficiency		η	4mW-1mW	0.4	0.5	-	mW/mA
			I _{4mW} - I _{1mW}				
Monitor Current		I _m	Po=5mW	0.1	0.2	0.5	mA
Beam Divergence	Parallel	θ //	Po=5mW	7.5	9	11	deg.
(FWHM)	Perpendicular	θ ⊥	Po=5mW	25	32	35	deg.
Lasing Wavelength		λ	Po=5mW	660	670	678	nm

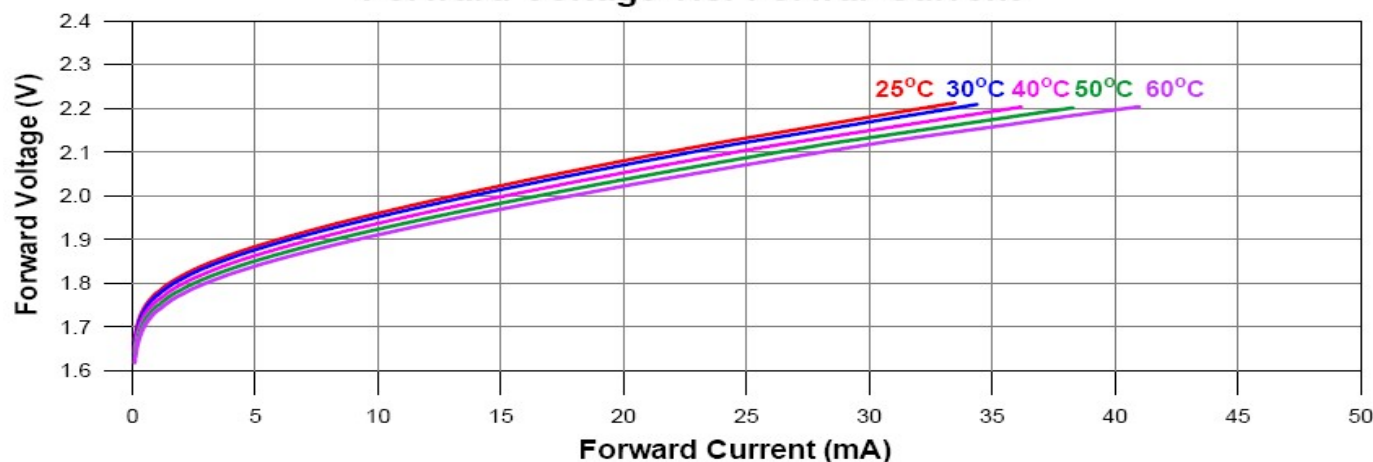
◎ $\theta //$ and $\theta \perp$ are defined as the angle within which the intensity is 50% of the peak value.

■ Typical characteristic curves

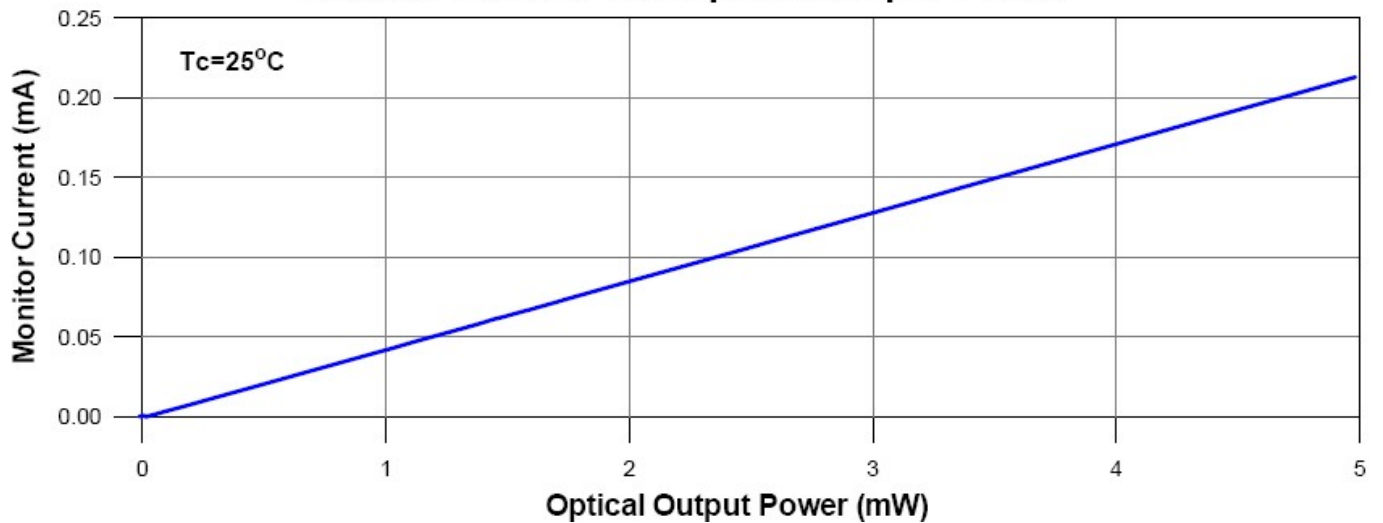
Optical Output Power v.s. Forward Current



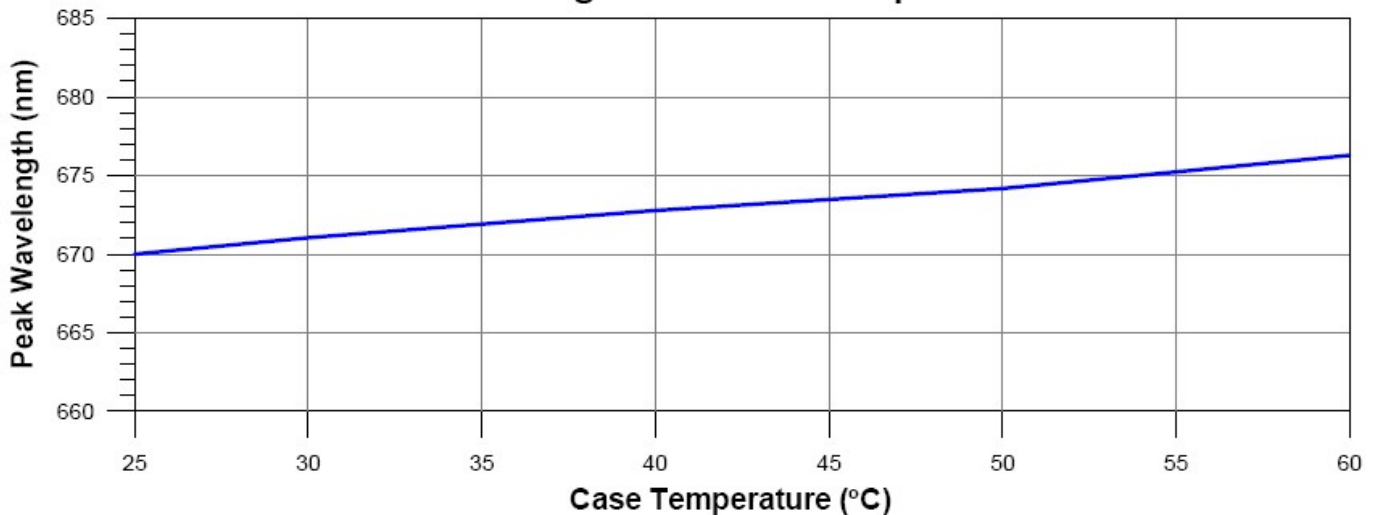
Forward Voltage v.s. Forward Current



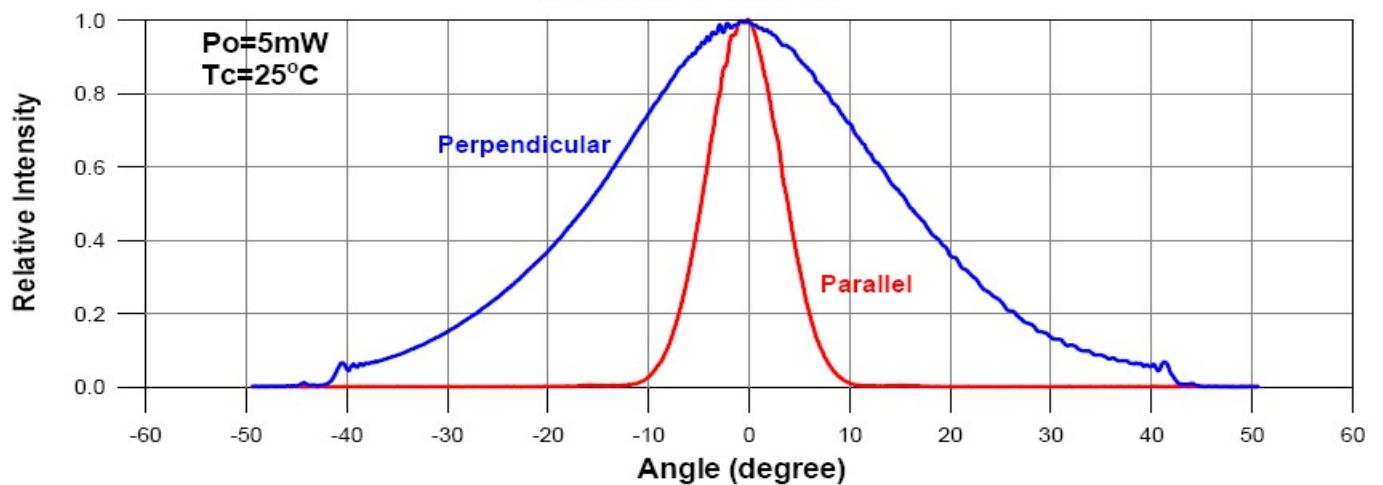
Monitor Current v.s. Optical Output Power



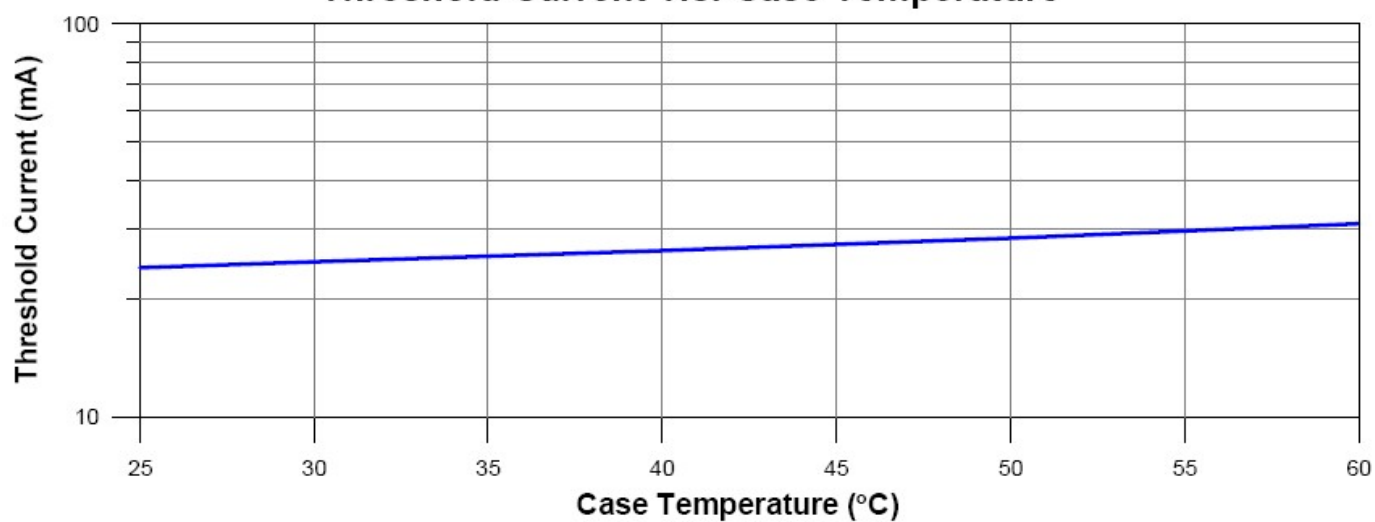
Peak Wavelength v.s. Case Temperature



Far-Field Pattern



Threshold Current v.s. Case Temperature



Slope Efficiency v.s. Case Temperature

