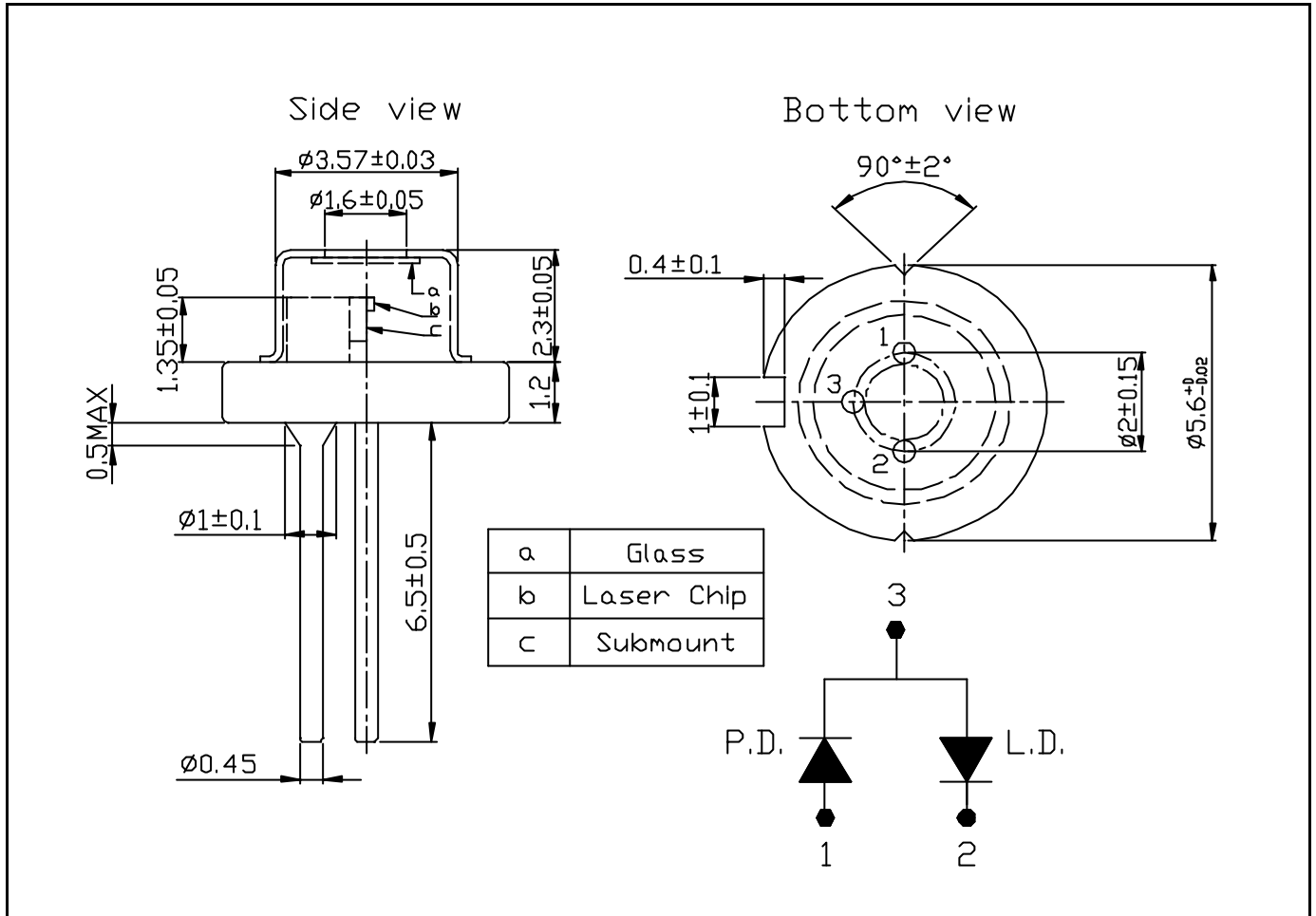


670nm Red Laser Diode LD670005

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	P_o	7	mW
Reverse Voltage	Laser	V_r	2
	PIN PD	$V_r(\text{PIN})$	30
Operating Temperature	T_{op}	-10~+60	$^\circ\text{C}$
Storage Temperature	T_{stg}	-15~+85	$^\circ\text{C}$

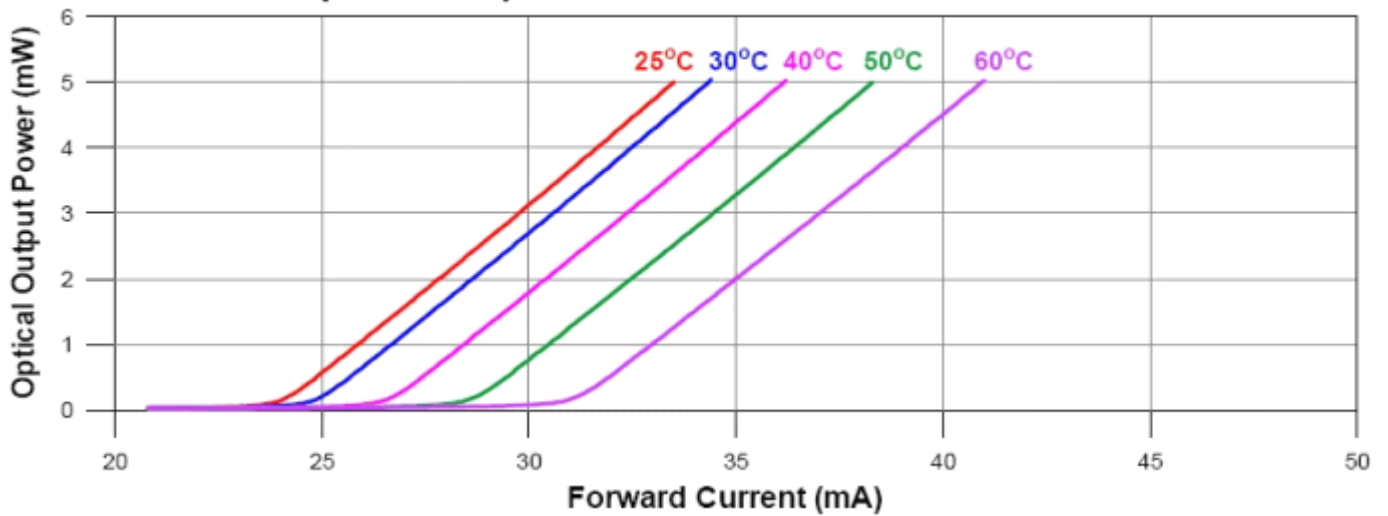
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	CW	-	24	35	mA	
Operating Current	I _{op}	P _o =5mW	-	34	45	mA	
Operating Voltage	V _{op}	P _o =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	P _o =5mW	0.1	0.2	0.5	mA	
Beam Divergence	Parallel	θ //	P _o =5mW	7.5	9	11	deg.
(FWHM)	Perpendicular	θ ⊥	P _o =5mW	25	32	35	deg.
Lasing Wavelength	λ	P _o =5mW	660	670	678	nm	

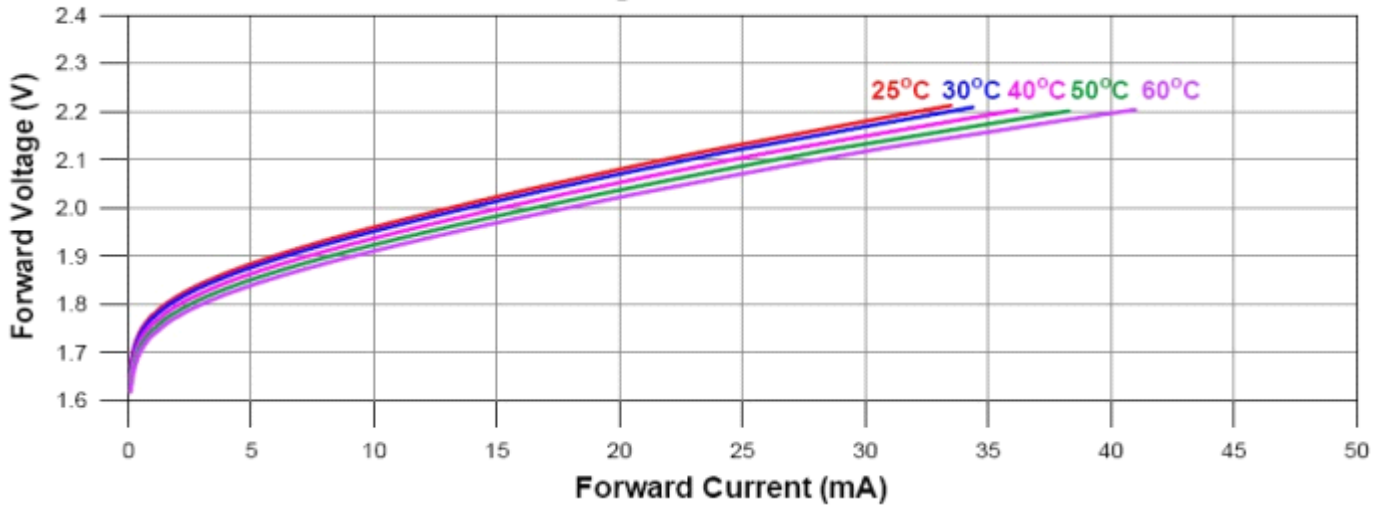
© θ // and θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

■ Typical characteristic curves

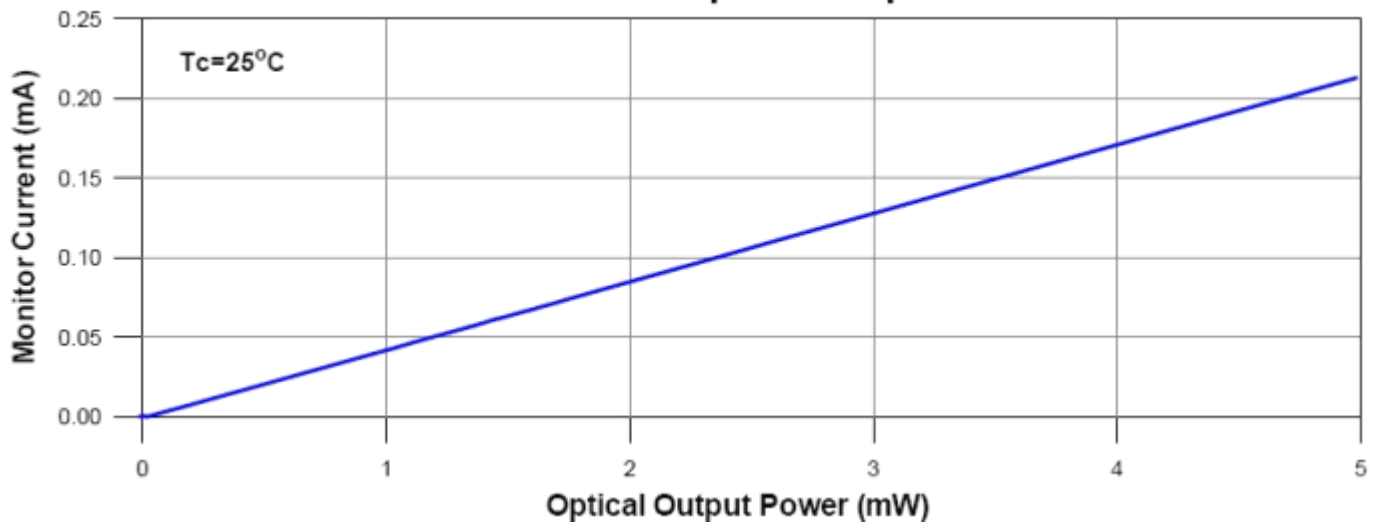
Optical Output Power v.s. Forward Current



Forward Voltage v.s. Forward Current



Monitor Current v.s. Optical Output Power



Peak Wavelength v.s. Case Temperature

