

LCU670571A

LCU670 SERIES LASER DIODE

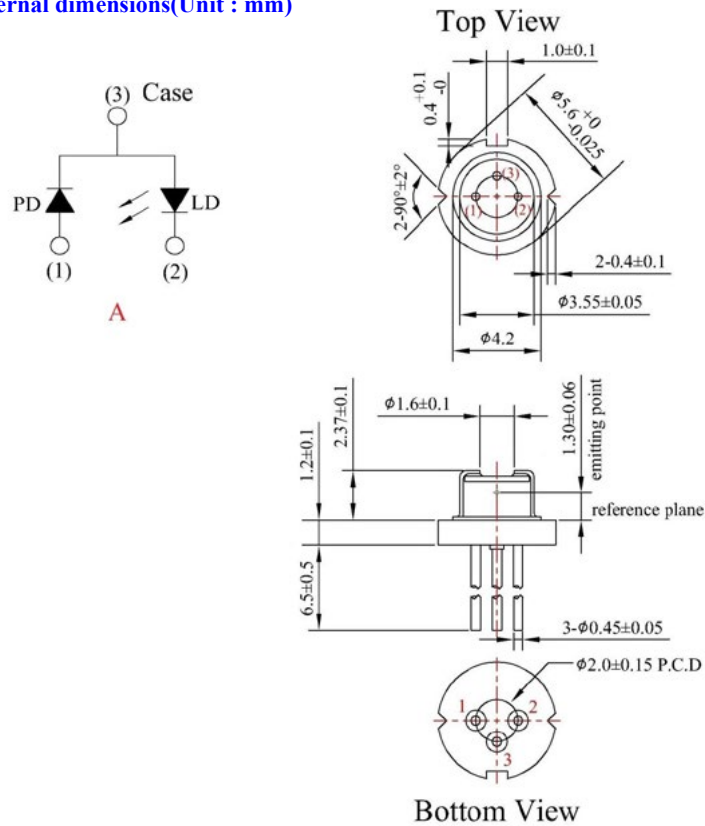
■ Features

1. Low divergence angle
2. Standard optical power output : 5mW (CW)
3. TO-56 (ϕ 5.6mm) Packaged, with Pb-free window cap.
4. Built-in photo diode for monitoring laser diode.

■ Applications

1. Laser Module
2. Bar code scanner
3. Medical equipment

■ External dimensions(Unit : mm)



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Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Optical Output (Tc=25°C)	Po	7	mW
LD Reverse Voltage (Tc=25°C)	Vr_LD	2	V
PD Reverse Voltage (Tc=25°C)	Vr_PD	30	V
Operating Temperature (Case)	Top	-10~+70	°C
Storage Temperature	Tstg	-40~+85	°C

Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	Ith	Po=1-2mW	-	24	28	mA	
Operating Current	Iop	Po=5mW	-	33	37	mA	
Operating Voltage	Vop	Po=5mW	-	2.2	2.6	V	
Slope Efficiency	η	Po=1.25-3.75mW	0.4	0.55	-	mW/mA	
Monitor Current	Im	Po=5mW	0.1	0.25	0.5	mA	
Beam Divergence (FWHM)	Parallel	$\theta_{//}$	Po=5mW	6	9	12	deg.
	Perpendicular	θ_{\perp}	Po=5mW	25	32	35	deg.
Lasing Wavelength	λ	Po=5mW	660	670	678	nm	

© $\theta_{//}$ and θ_{\perp} are defined as the angle within which the intensity is 50% of the peak value.

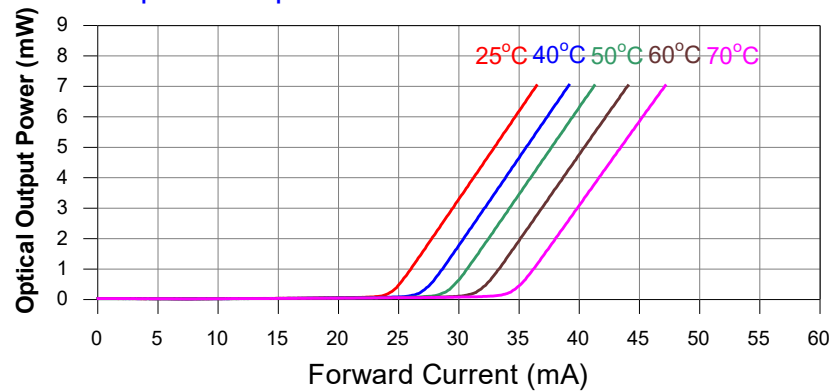
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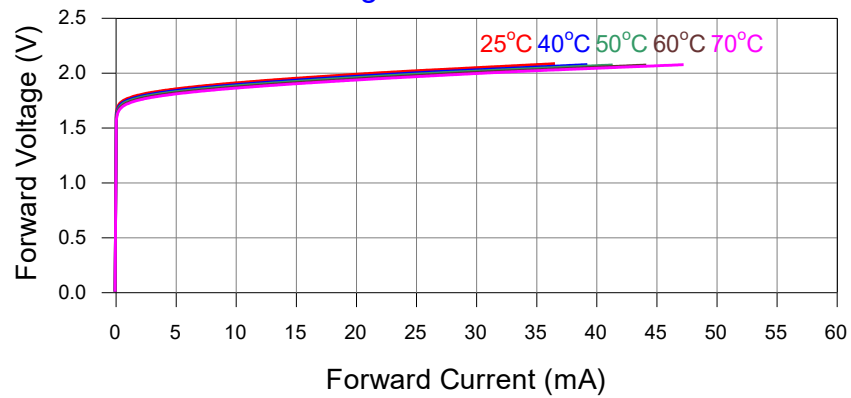
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■ Typical characteristic curves

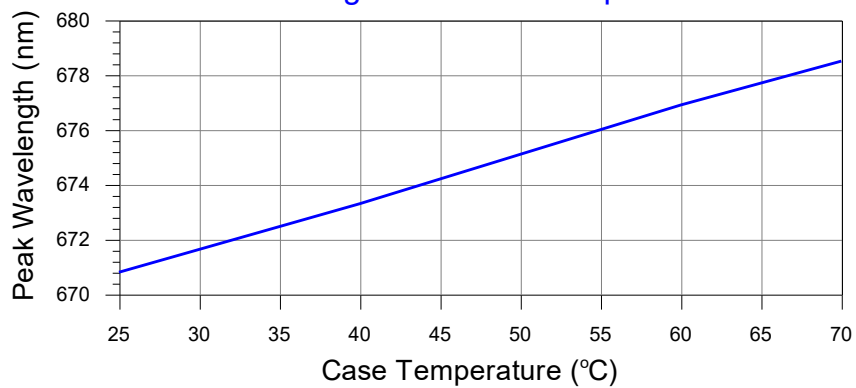
Optical Output Power v.s. Forward Current



Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature

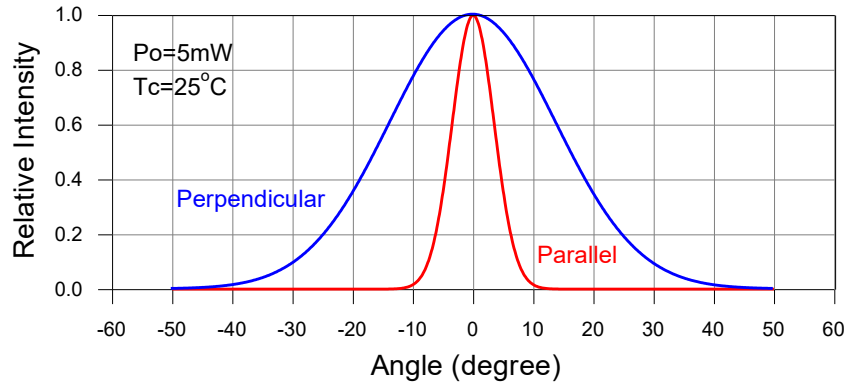


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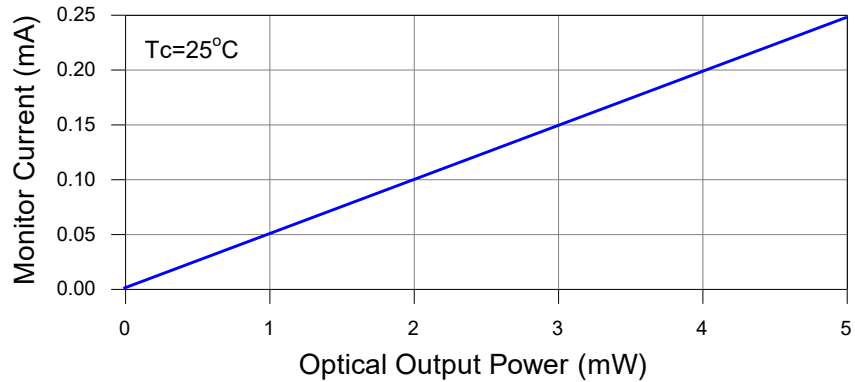
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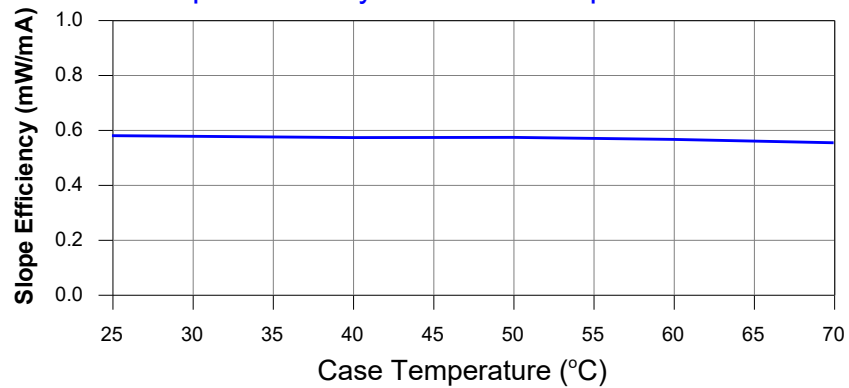
Far-Field Pattern



Monitor Current v.s. Optical Output Power



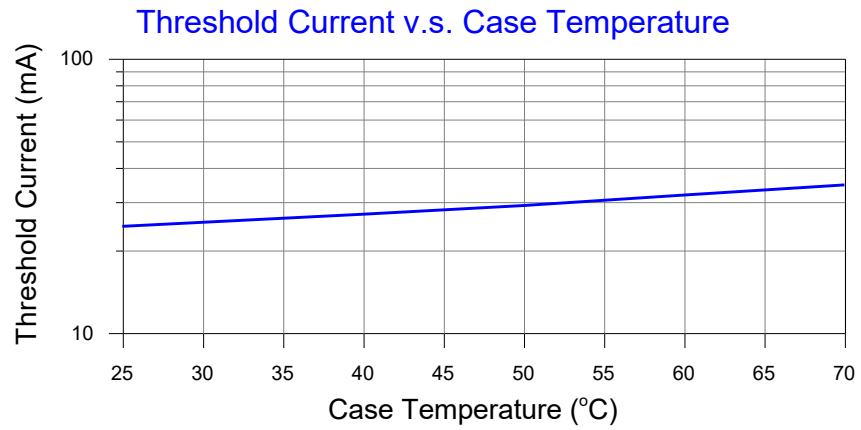
Slope Efficiency v.s. Case Temperature



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SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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