

LCU851061Ap

LCU85xx SERIES LASER DIODE

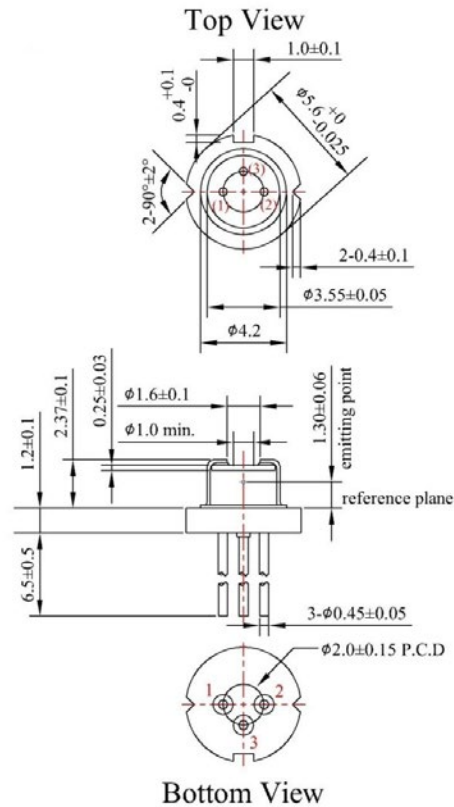
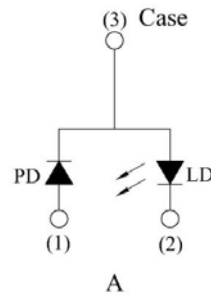
■ Features

1. Small perpendicular divergence angle
2. Lateral single mode lasing
3. Standard optical power output : 10mW (CW)
4. TO-56 (ϕ 5.6mm) Packaged, with Pb-free window cap.
5. Built-in Photo Diode for monitoring laser diode.

■ Applications

1. Motion sensor
2. 3D depth sensor
3. Industry
4. Medical application

■ External dimensions(Unit : mm)



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Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Rating	Unit
Optical Output	Po	10	mW
Reverse Voltage	Vr	2	V
Operating Temperature (Case)	Top	-10~+60	°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=10mW	-	8	10	mA
Operating Current	Iop	Po=10mW	-	21	25	mA
Operating Voltage	Vop	Po=10mW	-	1.8	2.1	Volts
Slope Efficiency	η	Po=2.5-7.5mW	-	0.75	-	mW/mA
	Im	Po=10mW	0.1	0.6	-	mA
Beam Divergence (FWHM)	Parallel	$\theta_{//}$	-	11	16	deg.
	Perpendicular	θ_{\perp}	-	20	25	deg.
Lasing Wavelength	λ	Po=10mW	840	850	860	nm

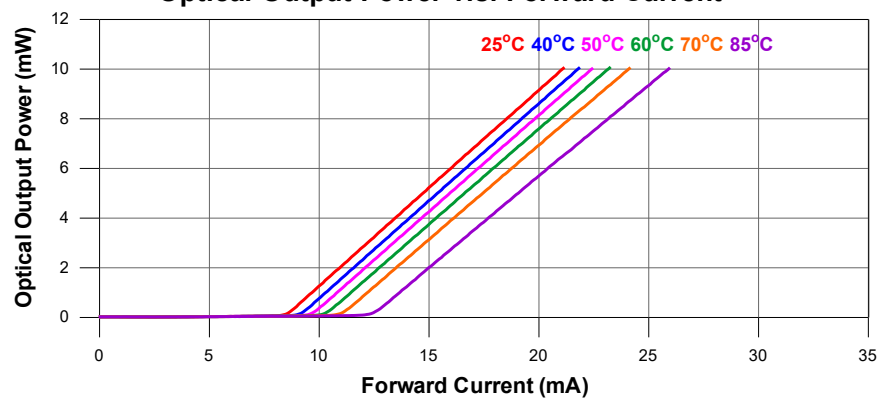
© $\theta_{//}$ and θ_{\perp} are defined as the angle within which the intensity is 50% of the peak value.

Quality Notice

This device is still under product development.

Typical characteristic curves

Optical Output Power v.s. Forward Current

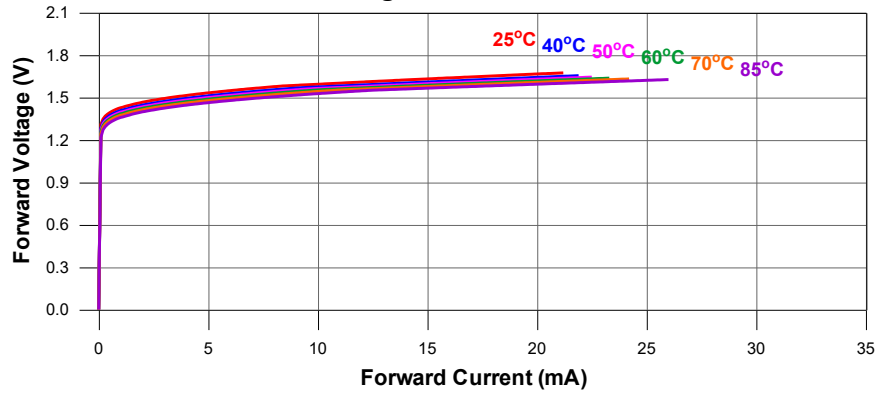


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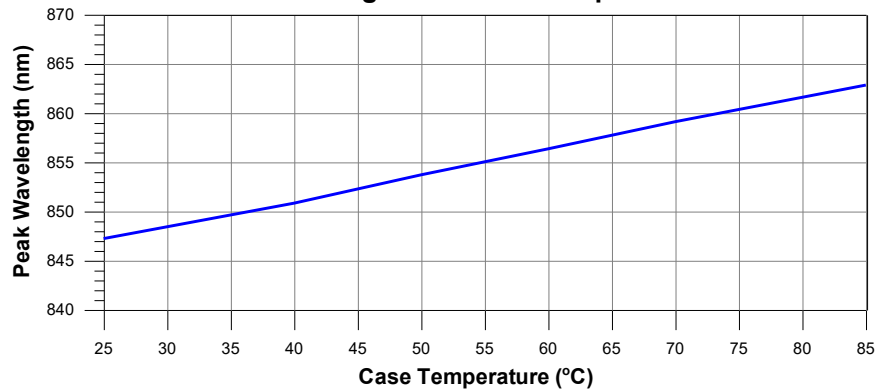
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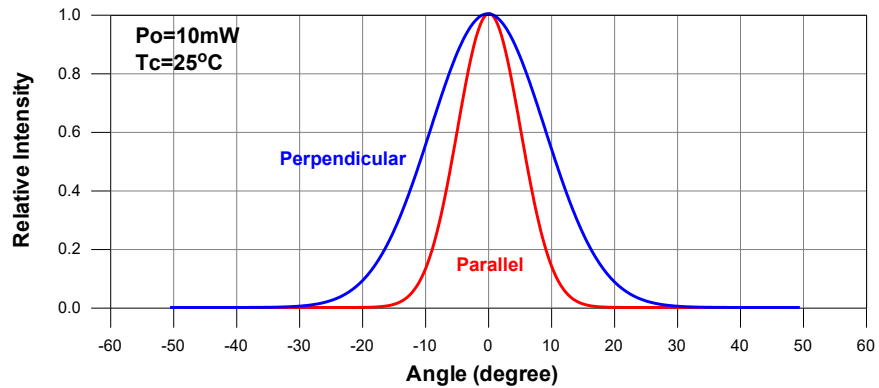
Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature



Far-Field Pattern

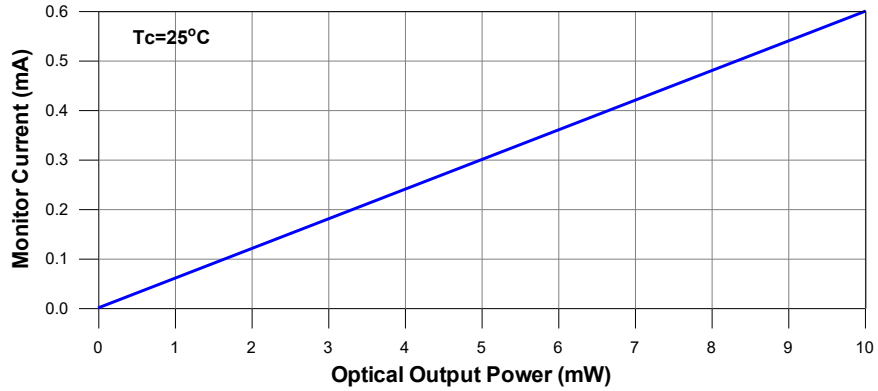


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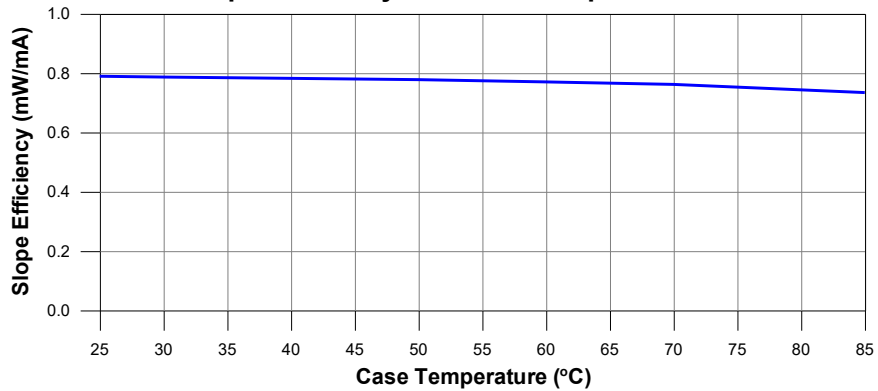
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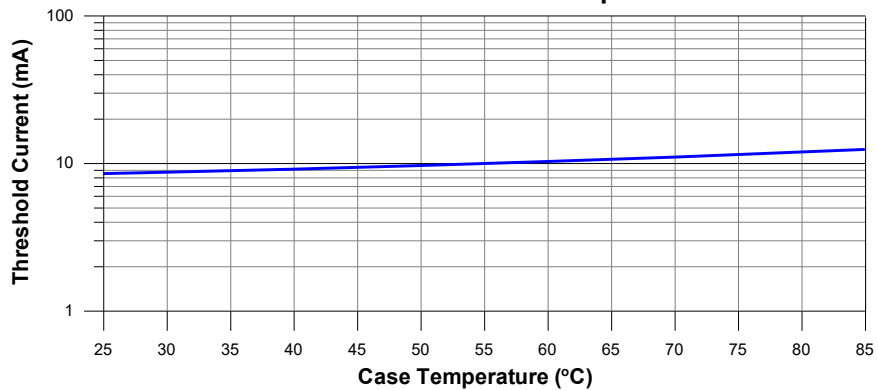
Monitor Current v.s. Optical Output Power



Slope Efficiency v.s. Case Temperature



Threshold Current v.s. Case Temperature



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SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.