

LCU-83C061Ap

LCU-83xx SERIES LASER DIODE

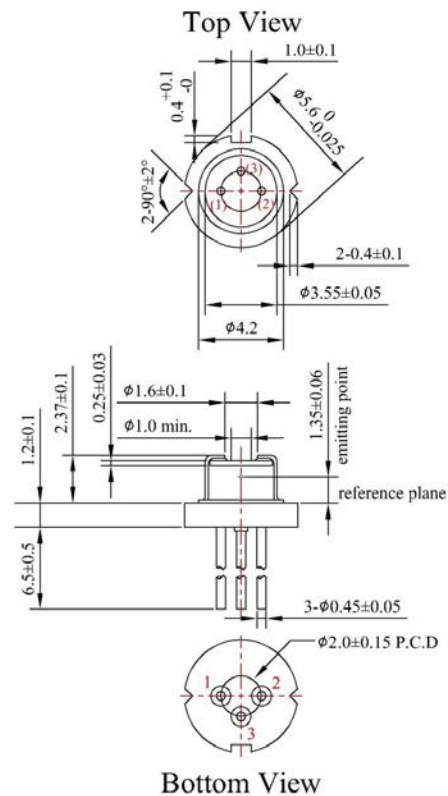
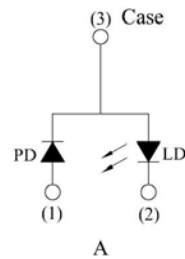
■ Features

1. Peak wavelength at 25°C : 830 nm (typical)
2. Standard light output : 300mW (CW)
3. TO-18 (ϕ 5.6mm) Packaged, cap window with flat Pb-free lens, monitor PD inside.
4. Small perpendicular divergence angle
5. Lateral single mode lasing

■ Applications

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

■ External dimensions(Unit : mm)



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■ Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Rating	Unit
Optical Output	Po	300	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)

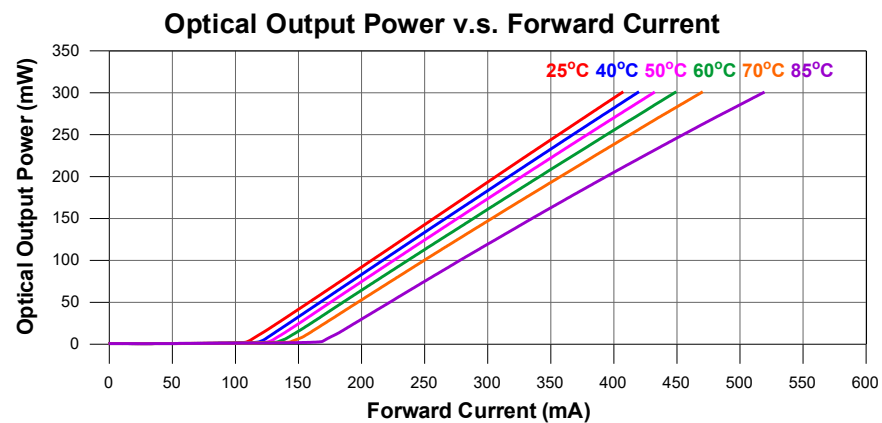
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	Ith	Po=300mW	-	115	130	mA	
Operating Current	Iop	Po=300mW	-	410	450	mA	
Operating Voltage	Vop	Po=300mW	-	1.85	2.0	V	
Slope Efficiency	η	Po=75-225mW	-	1	-	mW/mA	
Monitor Current	Im	Po=300mW	0.1	0.35	1	mA	
Beam Divergence (FWHM)	Parallel	θ_{\parallel}	Po=300mW	-	9	14	deg.
	Perpendicular	θ_{\perp}	Po=300mW	-	17	22	deg.
Lasing Wavelength	λ	Po=300mW	820	830	840	nm	

◎ θ_{\parallel} 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

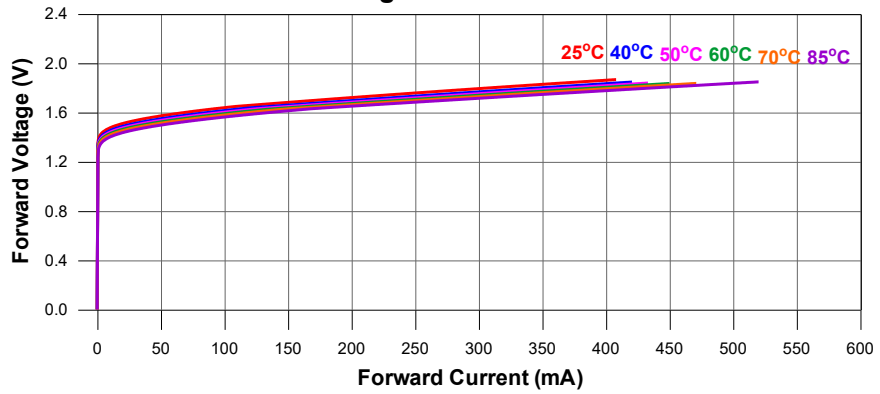


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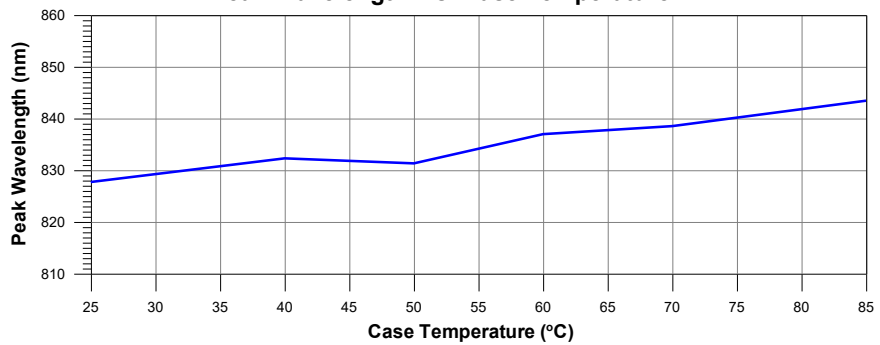
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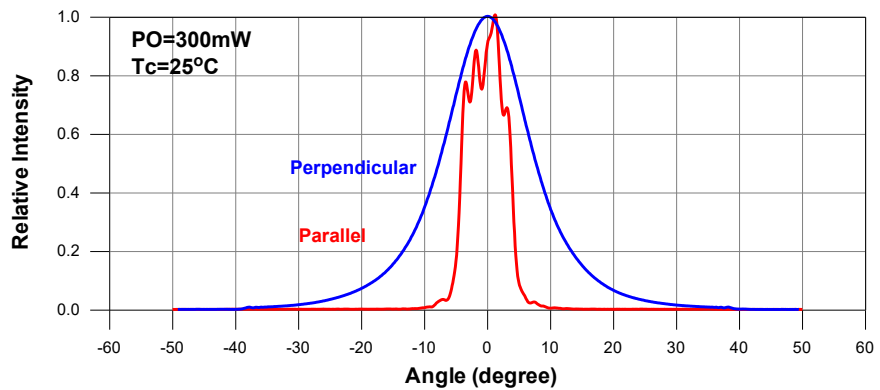
Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature



Far-Field Pattern

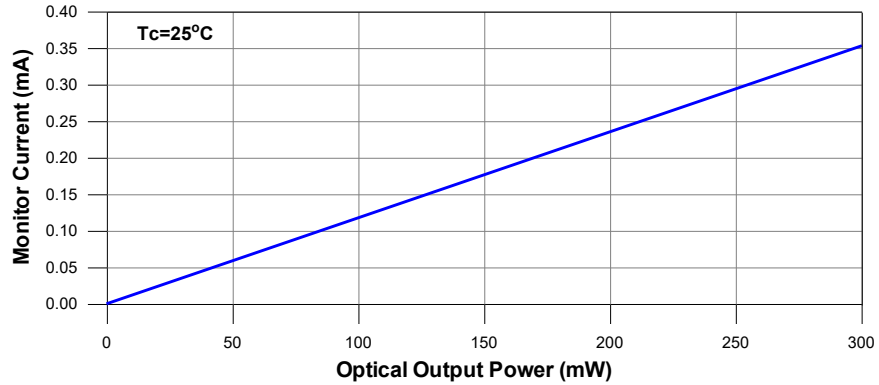


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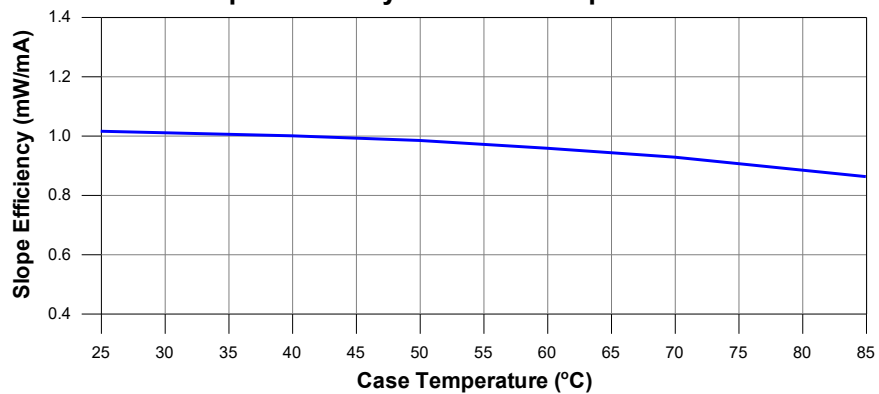
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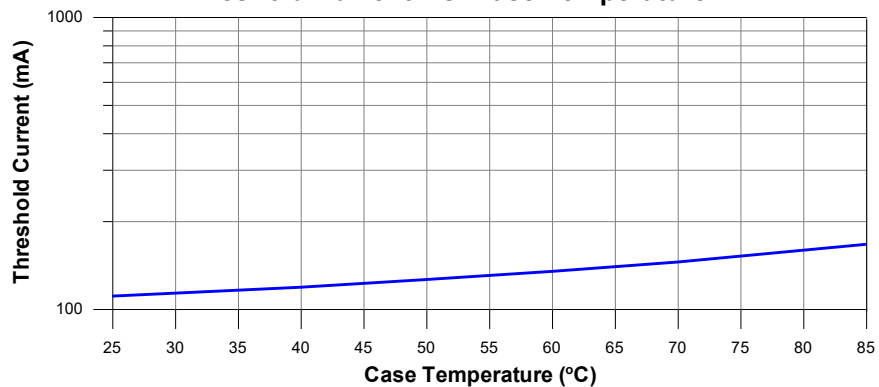
Monitor Current v.s. Optical Output Power



Slope Efficiency v.s. Case Temperature



Threshold Current v.s. Case Temperature



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