

LCU80J051Ap/Dp

LCU80xx SERIES LASER DIODE

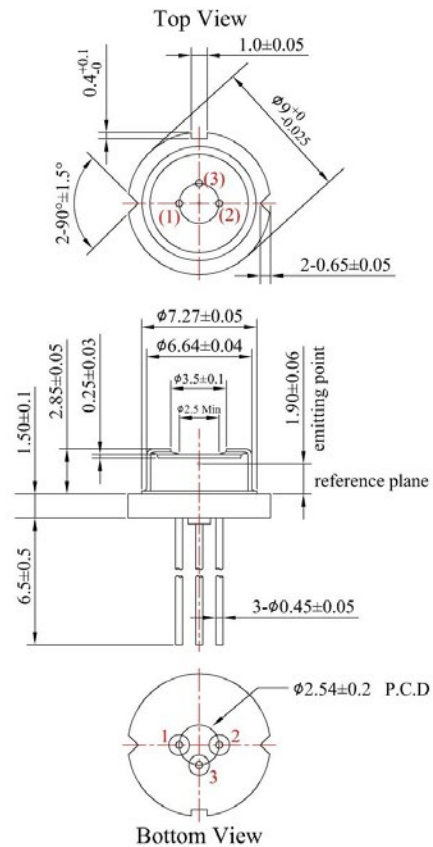
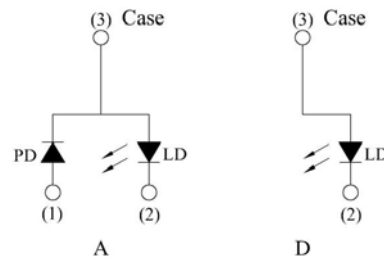
■ Features

1. Low operation current
2. High reliability
3. Low divergence angle
4. Standard optical power output : 1W (CW)
5. TO-9 (ϕ 9.0mm) Packaged, with Pb-free window cap.

■ Applications

1. Motion sensor
2. Medical application
3. Pumping source for solid state laser
4. Infrared illumination
5. Industrial application

■ External dimensions(Unit : mm)



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■ Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Rating	Unit
Optical Output	Po	1100	mW
Reverse Voltage	Vr	2	V
Operating Temperature (Case)	Top	-10~+50	°C
Storage Temperature	Tstg	-10~+85	°C

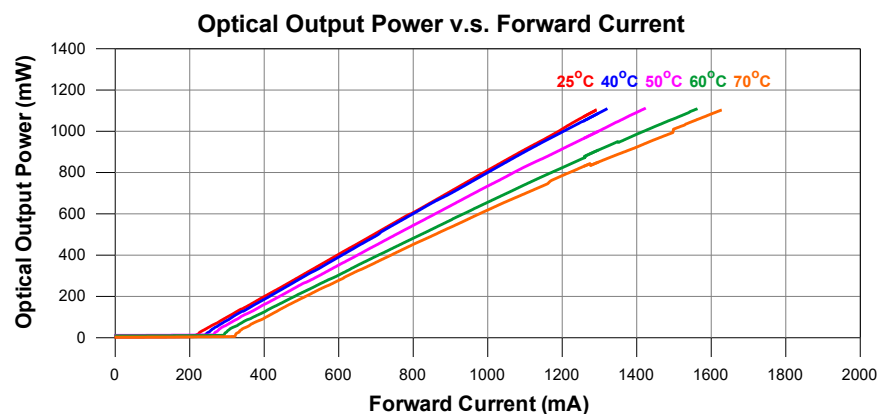
■ Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	Ith	Po=1W	-	220	-	mA
Operating Current	Iop	Po=1W	-	1200	1500	mA
Operating Voltage	Vop	Po=1W	-	2.0	2.2	Volts
Slope Efficiency	η	Po=250-750mW	0.95	1.1	-	mW/mA
Monitor Current	Im	Po=1W	-	0.9	-	mA
Beam Divergence (FWHM)	Parallel	$\theta_{//}$	-	8	-	deg.
	Perpendicular	θ_{\perp}	-	28	-	deg.
Lasing Wavelength	λ	Po=1W	803	808	813	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.

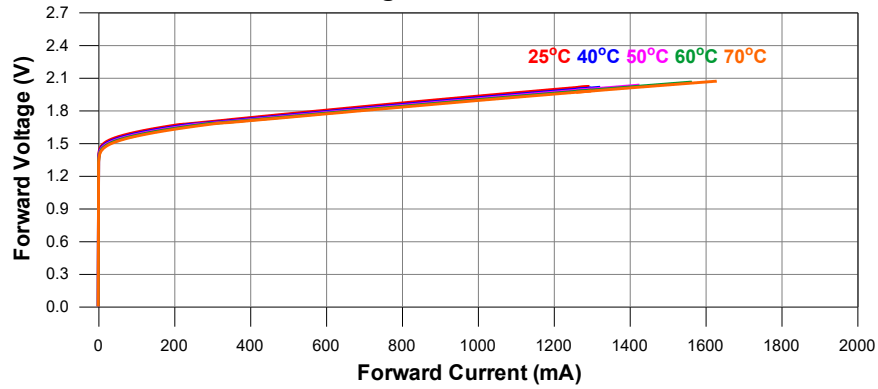


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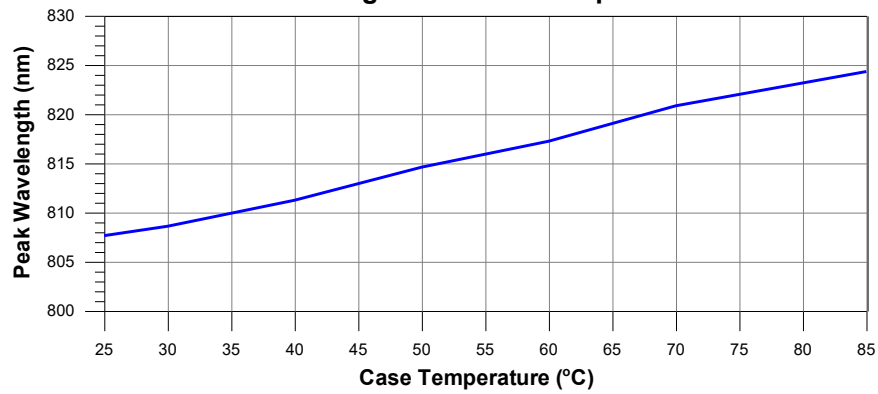
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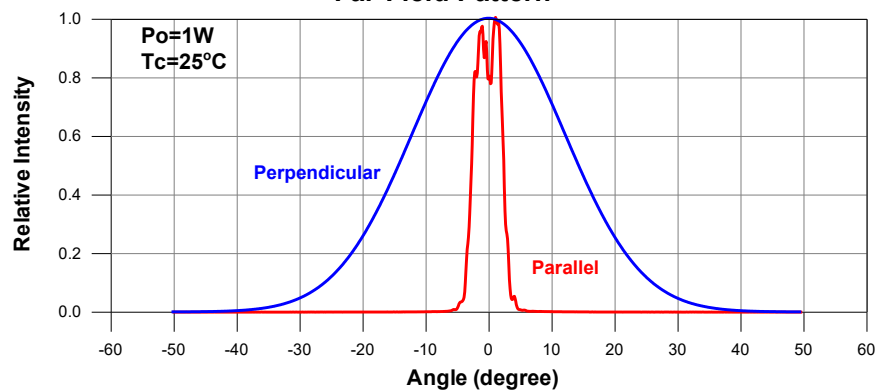
Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature



Far-Field Pattern

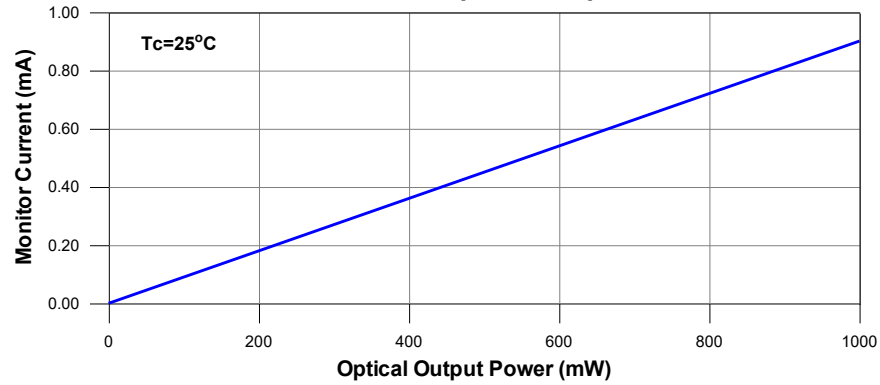


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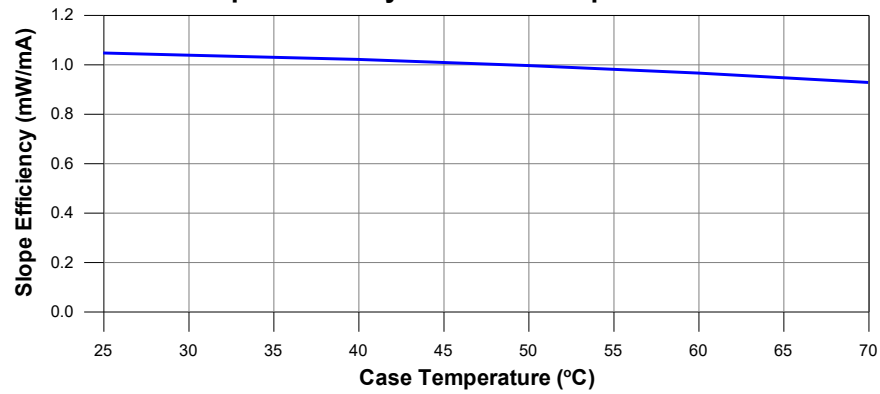
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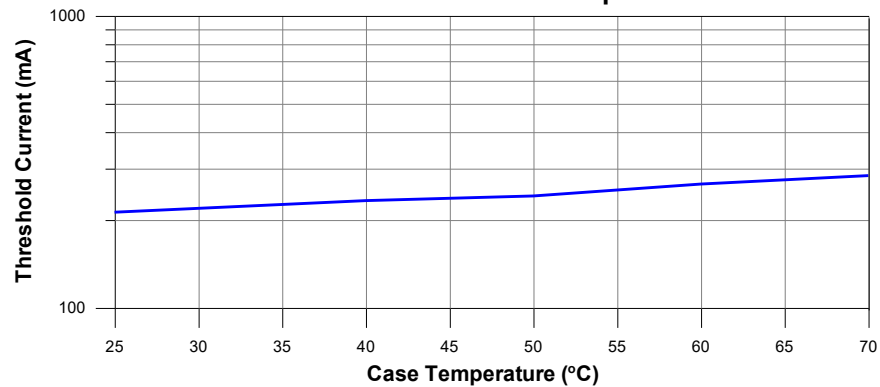
Monitor Current v.s. Optical Output Power



Slope Efficiency v.s. Case Temperature



Threshold Current v.s. Case Temperature



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