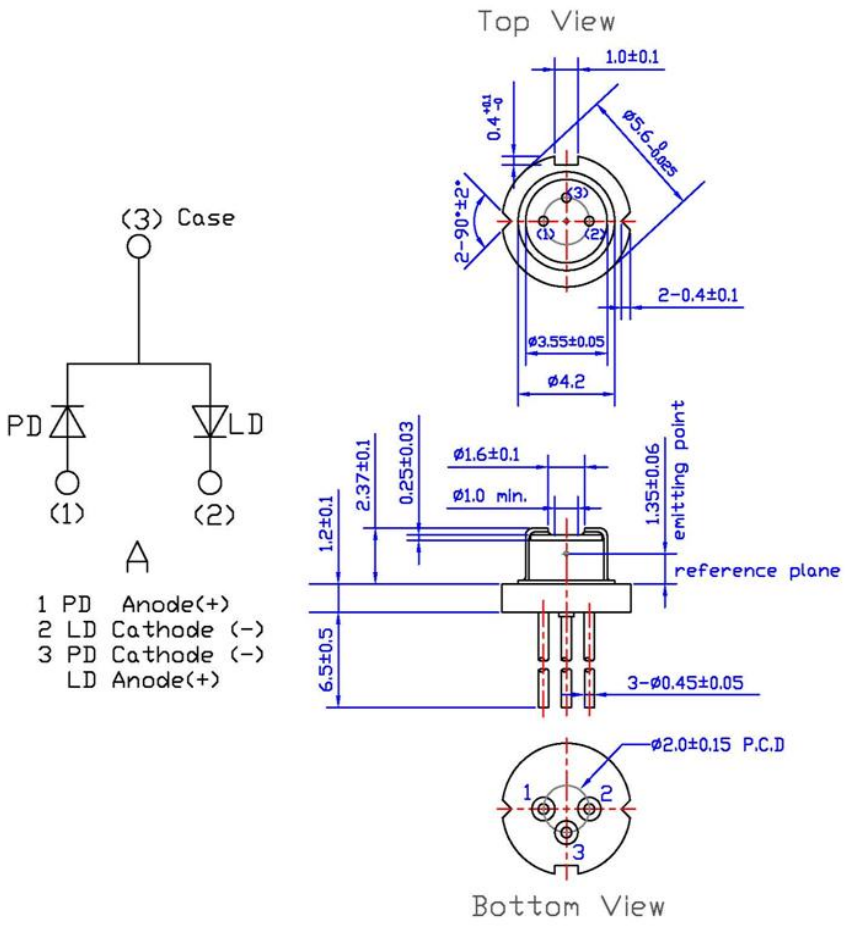
850nm IR Laser Diode
LCU85C051A-preliminary

■Specifications

(1) Device: Laser Diode

(2) Structure: TO-18（ϕ5.6mm),With Pb free glass cap, PD

■External dimensions(Unit : mm)



■Absolute Maximum Ratings(Tc=25℃)

Parameter		Symbols	Ratings	Units
Optical Output		Po	**300**	mW
Reverse Voltage	Laser	Vr	**2**	V
	PIN PD	Vr(PIN)	**30**	V
Operating Temperature		Top	-10～+50	℃
Storage Temperature		Tstg	-40～+85	℃

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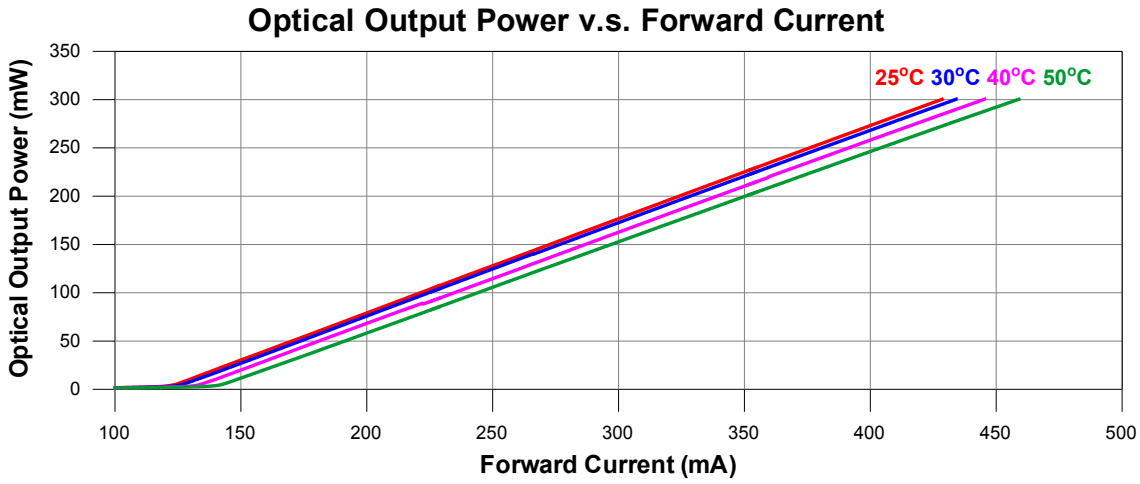
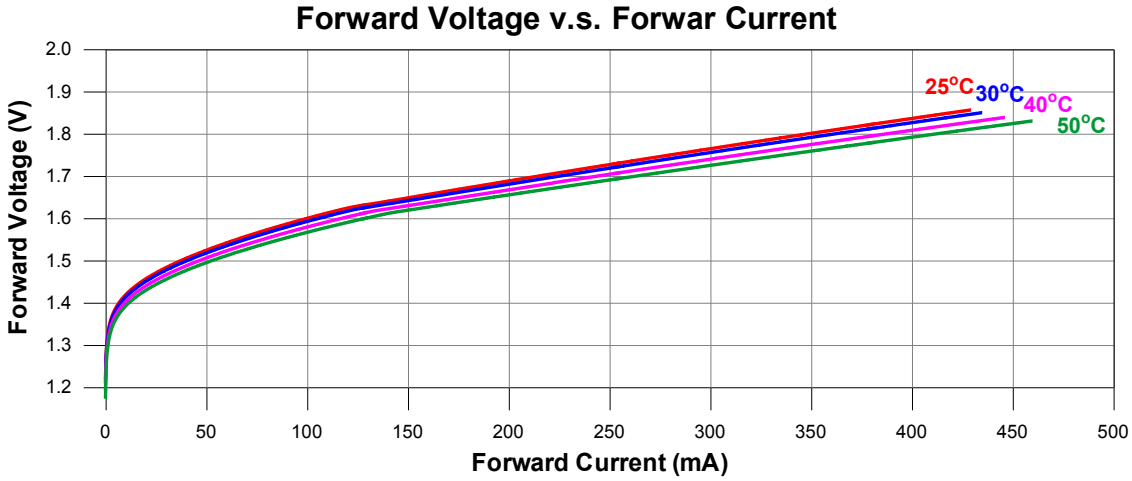
■Electrical and Optical Characteristics(Tc=25℃)

Parameter		Symbols	Conditions	Min.	Typ.	Max.	Units
Threshold Current		Ith	-	-	**115**	**130**	mA
Operating Current		Iop	Po=300mW	-	**435**	**470**	mA
Operating Voltage		Vop	-	-	**1.85**	**2**	Volts
Slope Efficiency		η	225mW-75mW / I_{225mW}-I_{75mW}	-	**0.95**	-	mW/mA
Monitor Current		Im	Po=300mW	**0.1**	**0.6**	-	mA
Beam Divergence (FWHM)	Parallel	θ //	Po=300mW	-	**12**	**17**	deg.
	Perpendicular	θ ⊥	Po=300mW	-	**18**	**23**	deg.
Lasing Wavelength*		λ	Po=300mW	**840**	**850**	**860**	nm

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

■Typical characteristic curves





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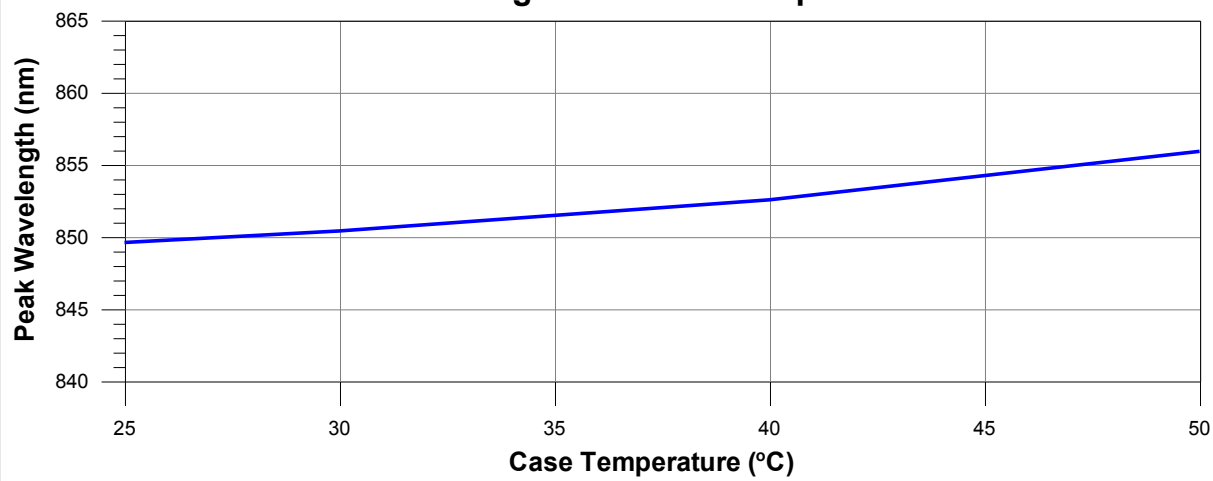
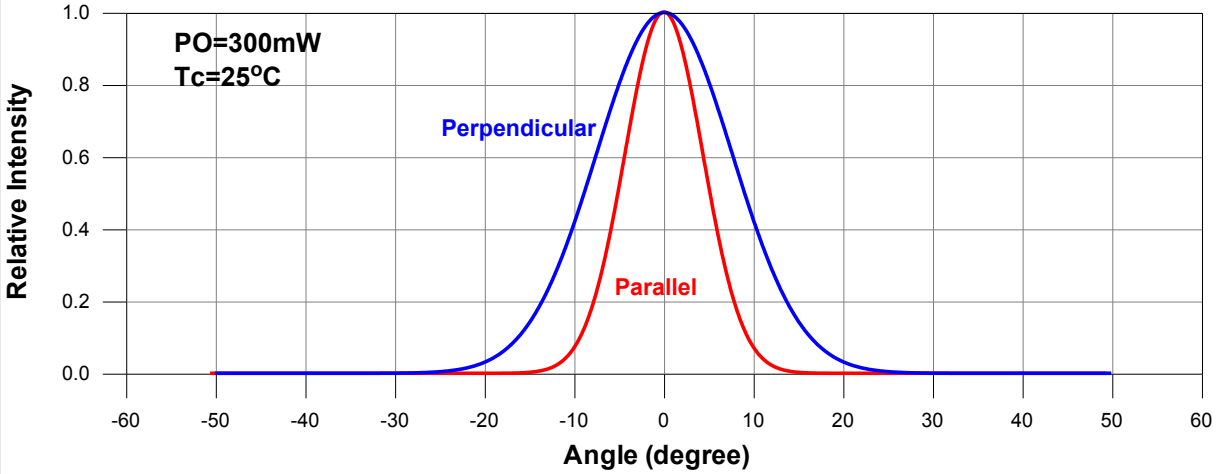
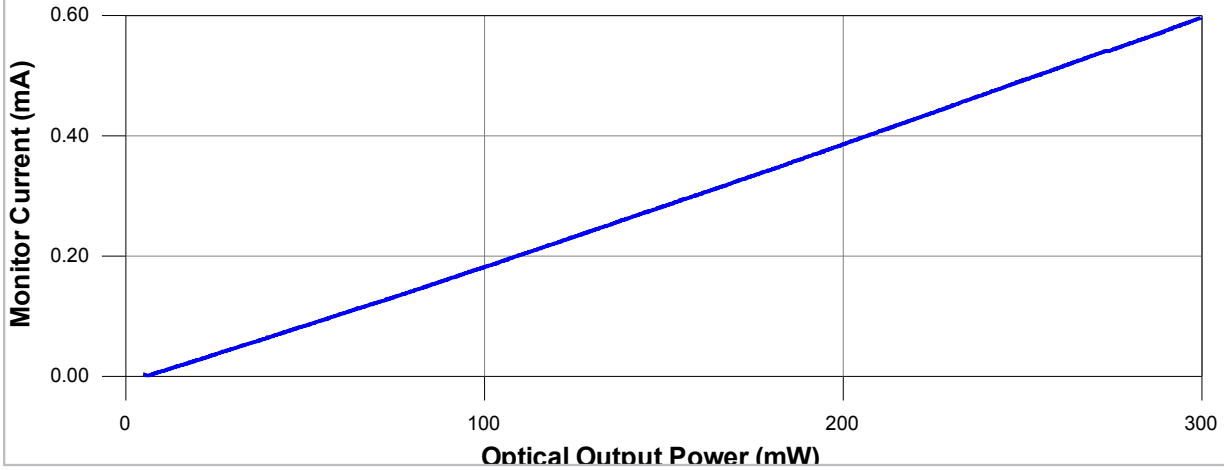
Peak Wavelength v.s. Case Temperature



Far-Field Pattern



Monitor Current v.s. Optical Output Power



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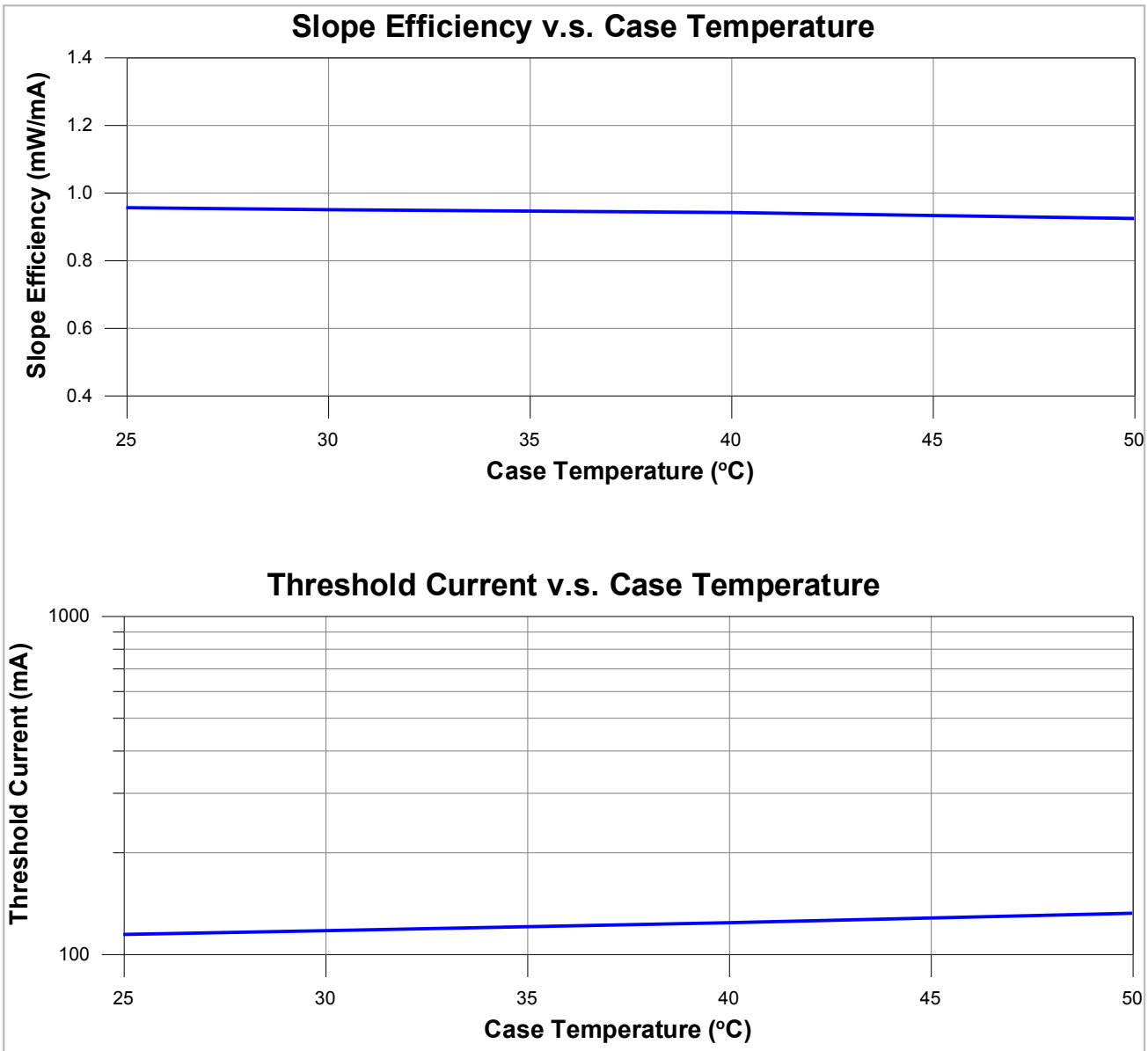

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