

## LCU80E072A/D

### LCU808 SERIES LASER DIODE

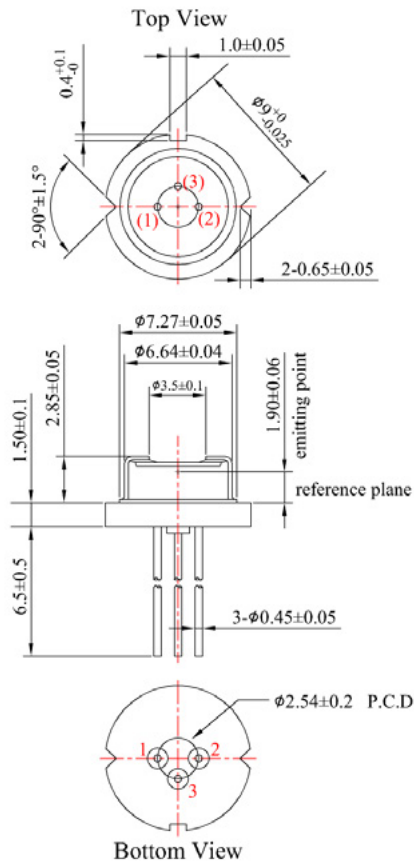
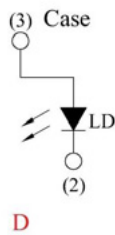
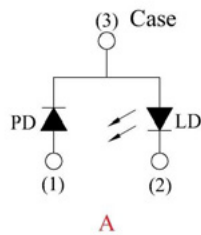
#### ■ Features

1. Low operation current
2. High reliability
3. Low divergence angle
4. Standard optical power output : 500mW (CW)
5. TO-9 ( $\phi$  9.0mm) packaged, cap window with flat Pb-free lens.

#### ■ Applications

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

#### ■ External dimensions(Unit : mm)



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#### Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Optical Output (Tc=25°C)	Po	<b>600</b>	mW
LD Reverse Voltage (Tc=25°C)	Vr_LD	<b>2</b>	V
PD Reverse Voltage (Tc=25°C)	Vr_PD	<b>30</b>	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	-	-	<b>72</b>	-	mA	
Operating Current	Iop	Po=500mW	-	<b>505</b>	<b>530</b>	mA	
Operating Voltage	Vop	Po=500mW	-	<b>1.92</b>	<b>2.1</b>	V	
Slope Efficiency	$\eta$	Po=125-375mW	-	<b>1.15</b>	-	mW/mA	
Monitor Current	Im	Po=500mW, VRD=5V	-	<b>0.6</b>	<b>2.5</b>	mA	
Beam Divergence (FWHM)	Parallel	$\theta_{//}$	Po=500mW	-	<b>10</b>	-	deg.
	Perpendicular	$\theta_{\perp}$	Po=500mW	-	<b>28</b>	-	deg.
Lasing Wavelength	$\lambda$	Po=500mW	<b>798</b>	<b>808</b>	<b>818</b>	nm	

©  $\theta_{//}$  and  $\theta_{\perp}$  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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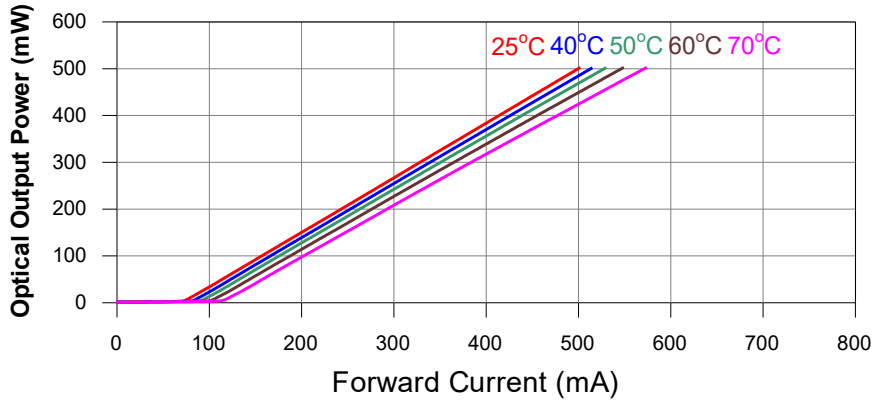
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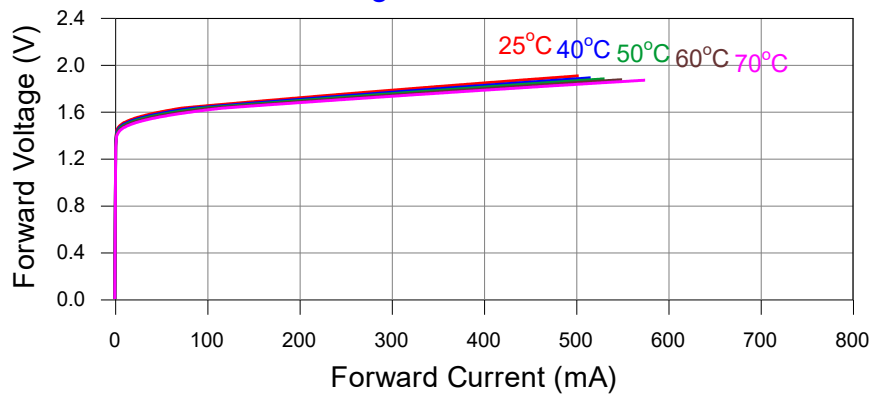
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■ Typical characteristic curves

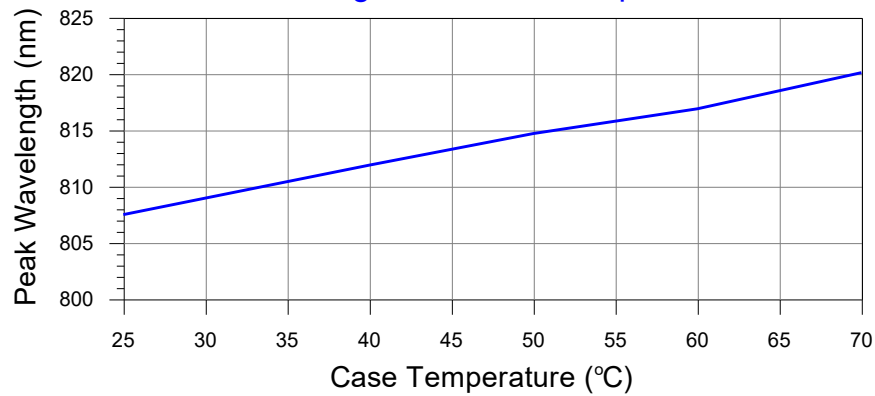
Optical Output Power v.s. Forward Current



Forward Voltage v.s. Forward Current



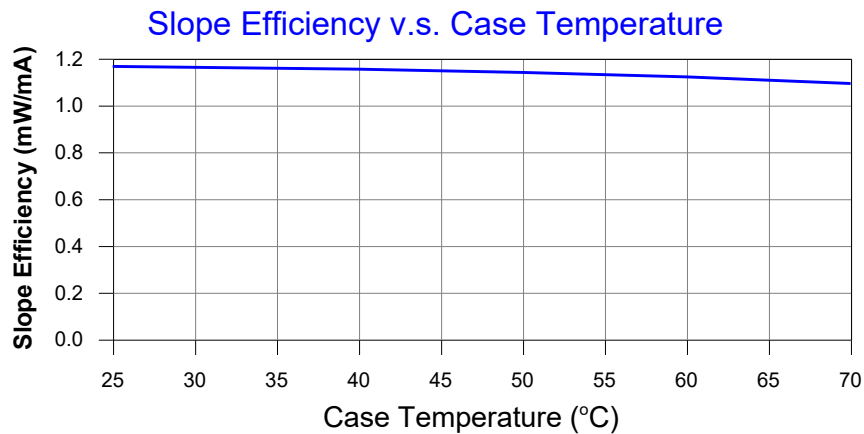
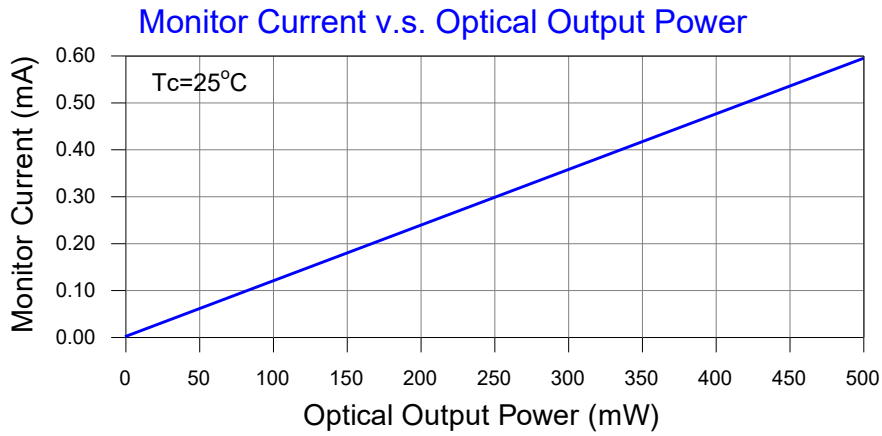
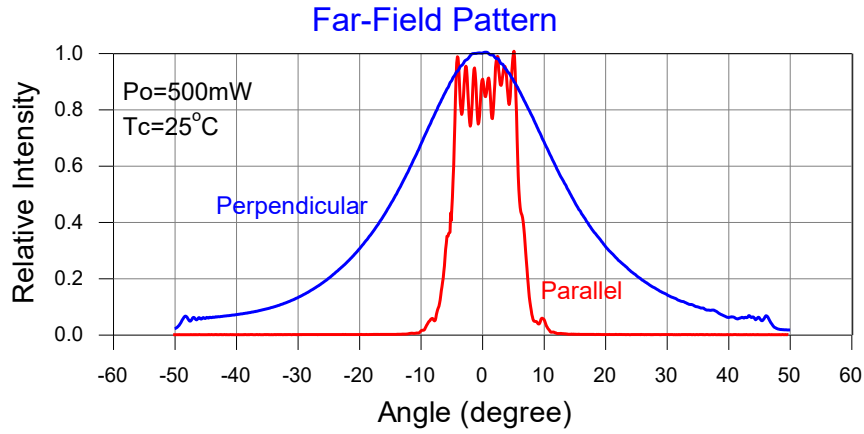
Peak Wavelength v.s. Case Temperature



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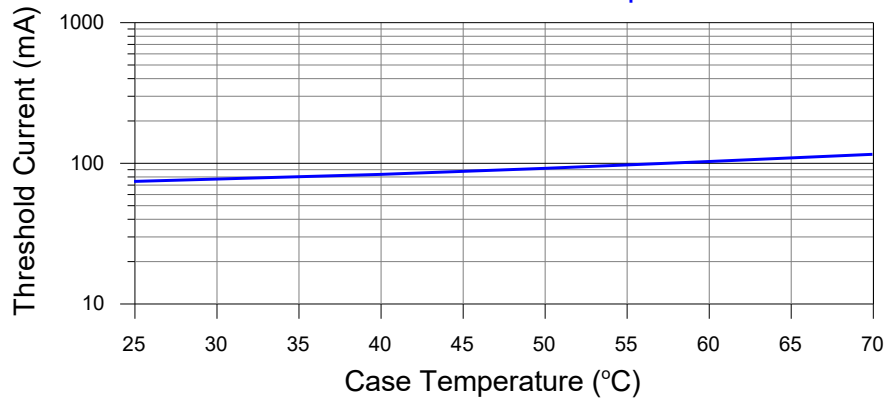


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Threshold Current v.s. Case Temperature



**SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.**

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