

LCU802071A

LCU802 SERIES LASER DIODE

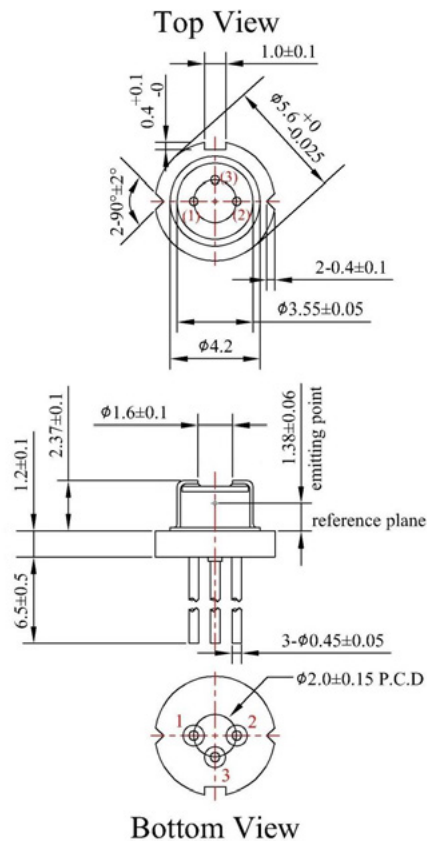
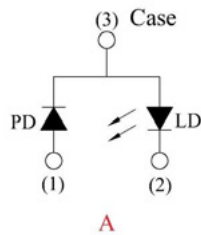
■ Features

1. Low operation current
2. High reliability
3. Low divergence angle
4. Standard optical power output : 20mW (CW)
5. TO-56 (ϕ 5.6mm) Package, cap window with flat Pb-free lens.
6. Built-in photodiode for monitoring laser power.

■ Applications

1. Motion sensor
2. Medical application
3. Infrared illumination
4. Industrial application

■ External dimensions(Unit : mm)



Ver.01

LCU802071A

LCU802 SERIES LASER DIODE

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Optical Output (Tc=25°C)	Po	25	mW
LD Reverse Voltage (Tc=25°C)	Vr_LD	2	V
PD Reverse Voltage (Tc=25°C)	Vr_PD	30	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		I _{th}	Po=1-5mW	-	11	-	mA
Operating Current		I _{op}	Po=20mW	-	32	40	mA
Operating Voltage		V _{op}	Po=20mW	-	1.80	2.0	V
Slope Efficiency		η	Po=5-15mW	-	0.95	-	mW/mA
Monitor Current		I _m	Po=20mW	-	1.0	2.0	mA
Beam Divergence (FWHM)	Parallel	$\theta_{//}$	Po=20mW	-	6.5	-	deg.
	Perpendicular	$\theta_{\perp}$	Po=20mW	-	26	-	deg.
Lasing Wavelength		λ	Po=20mW	790	800	810	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, the long-term lifetime test has not been qualified yet.

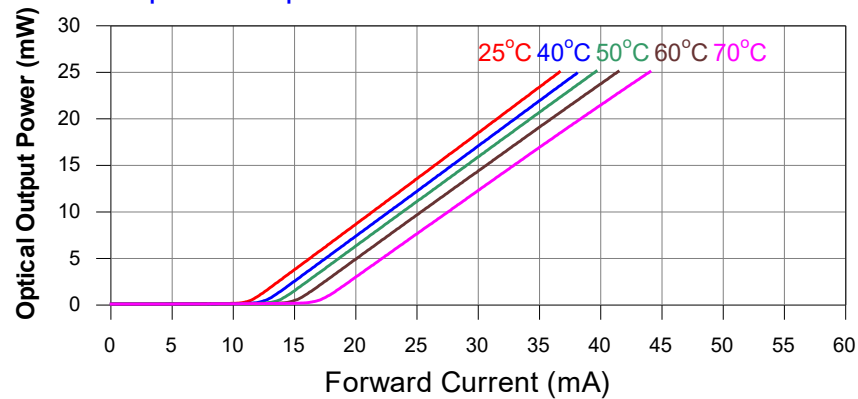
Ver.01

LCU802071A

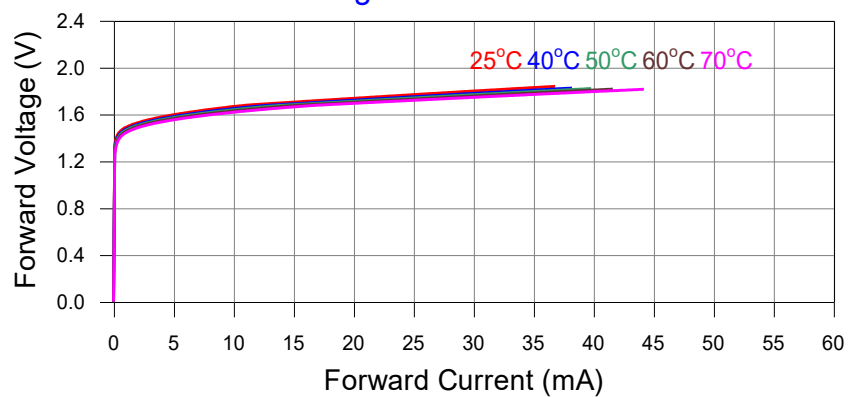
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■ Typical characteristic curves

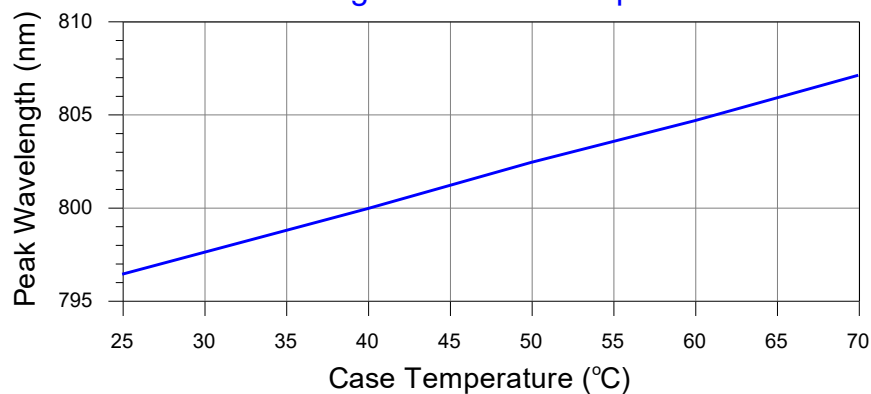
Optical Output Power v.s. Forward Current



Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature

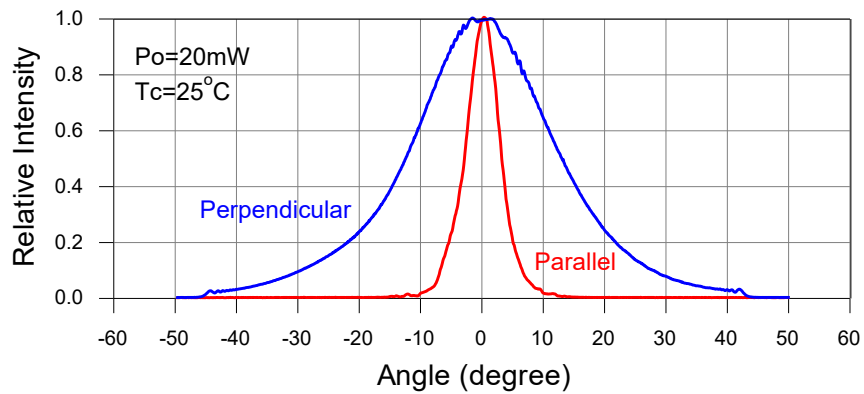


Ver.01

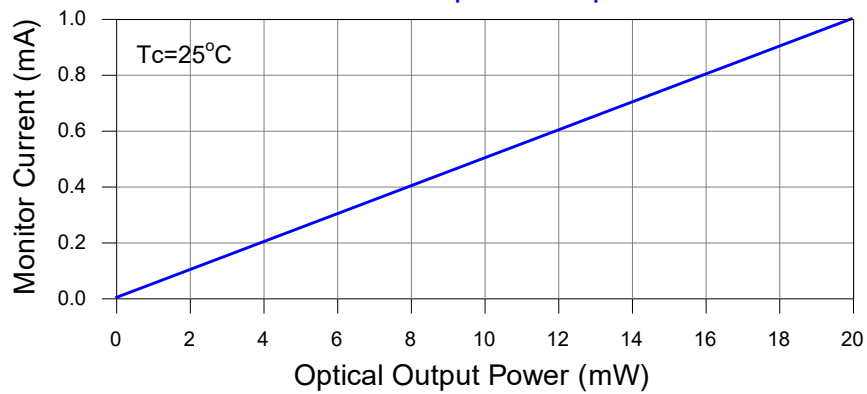
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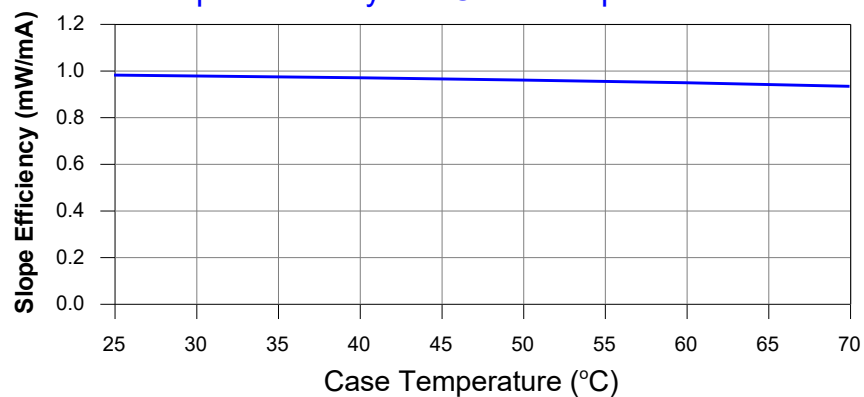
Far-Field Pattern



Monitor Current v.s. Optical Output Power



Slope Efficiency v.s. Case Temperature

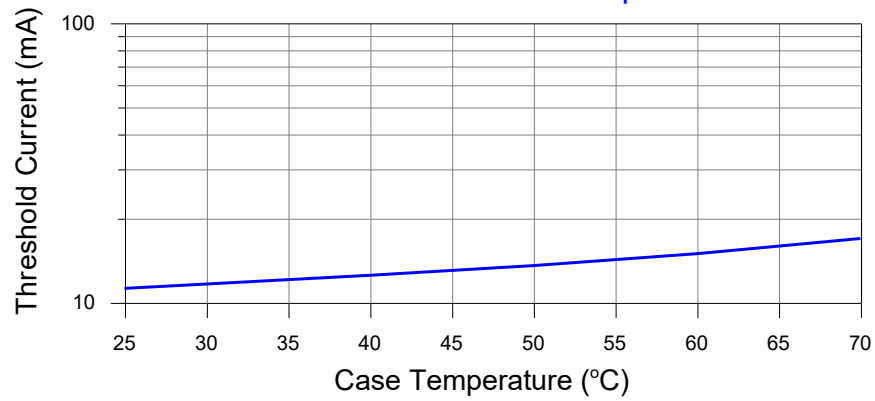


Ver.01

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LCU802 SERIES LASER DIODE

Threshold Current v.s. Case Temperature



SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Ver.01