

LCU80J051Ap/Dp

LCU80xx SERIES LASER DIODE

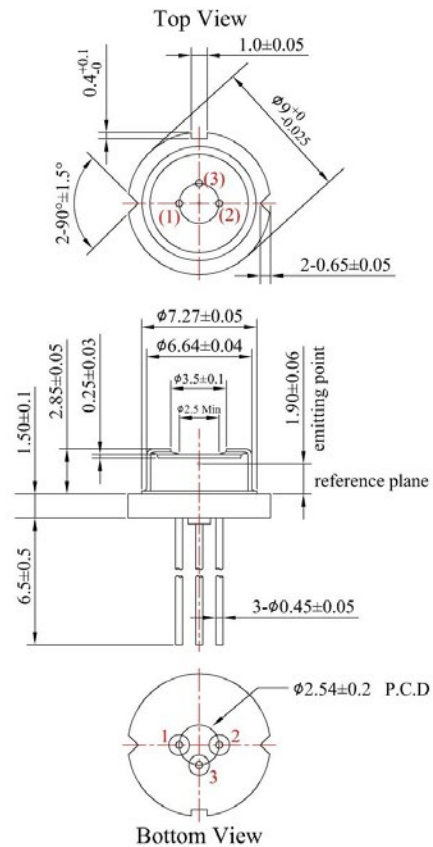
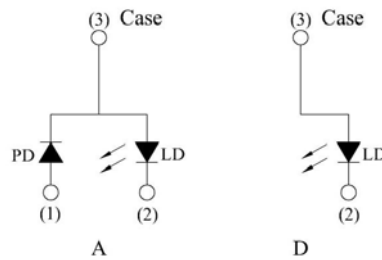
■ Features

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)



Ver.A

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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 |

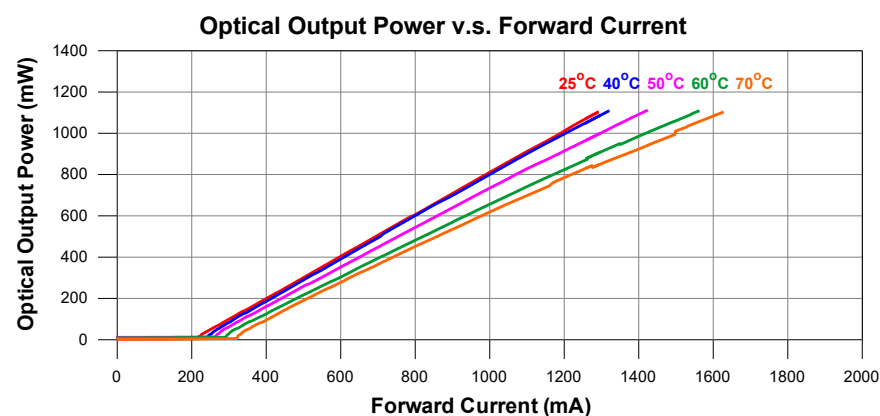
Electrical and Optical Characteristics(Tc=25°C)

| 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.

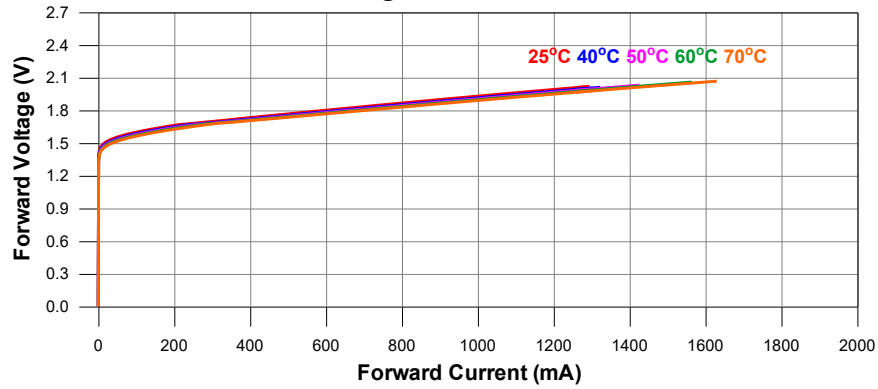


Ver.A

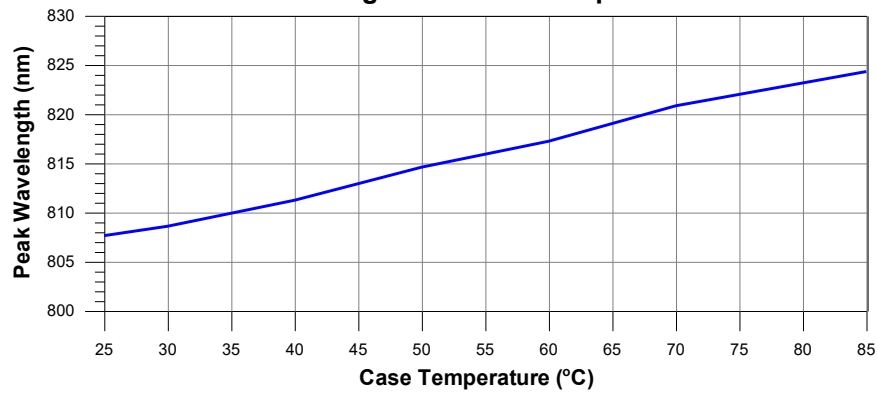
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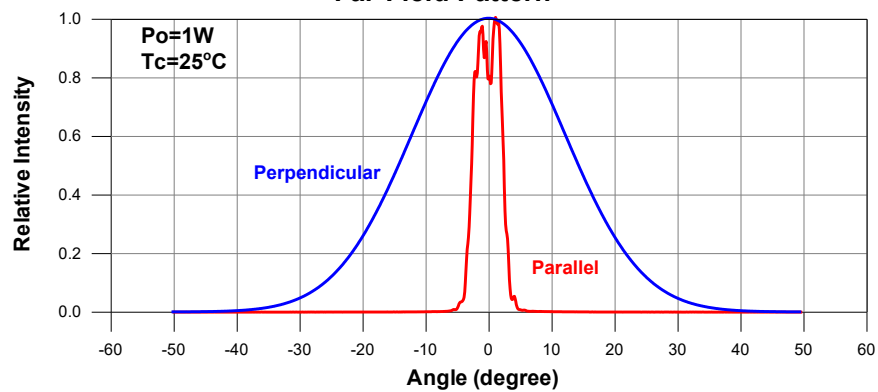
Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature



Far-Field Pattern

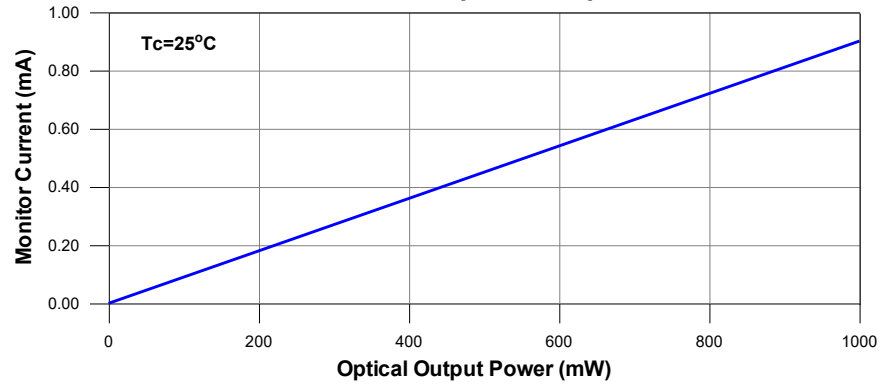


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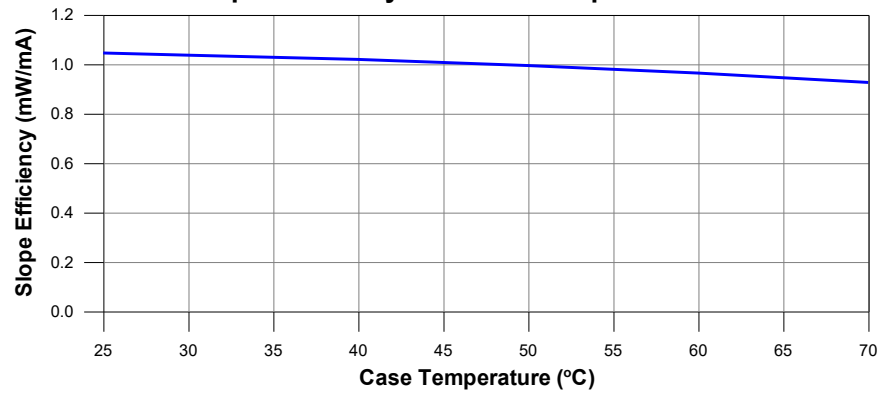
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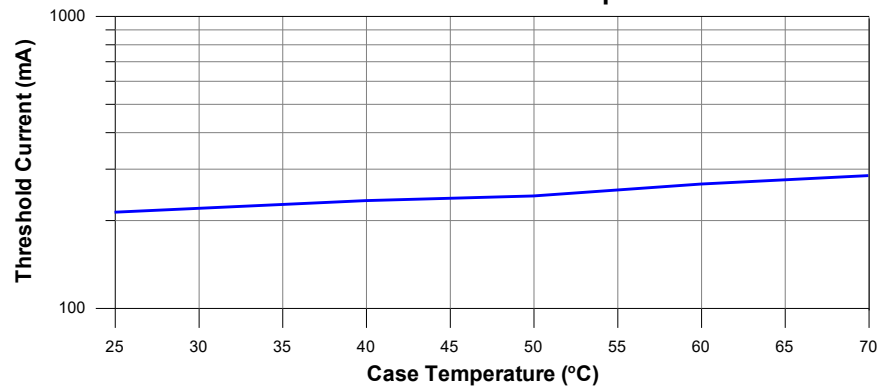
Monitor Current v.s. Optical Output Power



Slope Efficiency v.s. Case Temperature



Threshold Current v.s. Case Temperature



Ver.A

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.