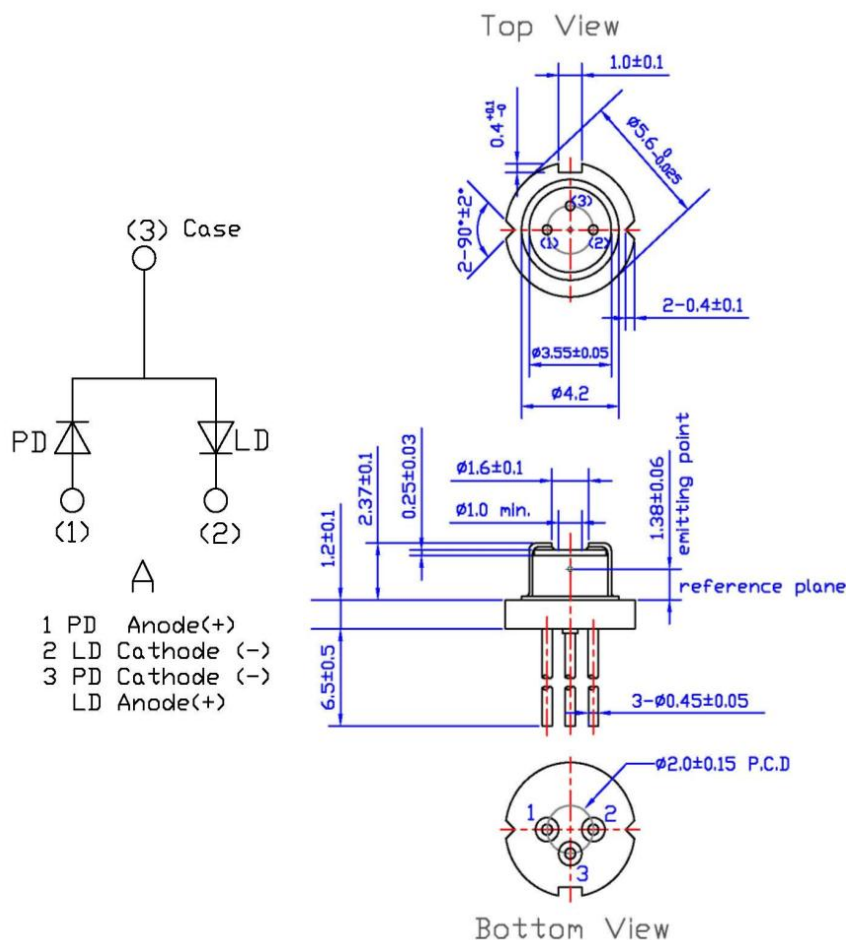


830nm IR Laser Diode LCU835051A-preliminary

■ Specifications

- (1) Device: Laser Diode
 (2) Structure: TO-18 (ϕ 5.6mm), With Pb free glass cap, PD

■ External dimensions(Unit : mm)



■ Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

| Parameter | Symbols | Ratings | Units |
|-----------------------|---------|---------|------------------|
| Optical Output | Po | 50 | mW |
| Reverse Voltage | Laser | Vr | 2 |
| | PIN PD | Vr(PIN) | 30 |
| Operating Temperature | Top | -10~+50 | $^\circ\text{C}$ |
| Storage Temperature | Tstg | -40~+85 | $^\circ\text{C}$ |

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

| Parameter | Symbols | Conditions | Min. | Typ. | Max. | Units | |
|---------------------------|-----------------|--|-------------|-------------|------------|-----------|------|
| Threshold Current | I _{th} | - | - | 14 | 18 | mA | |
| Operating Current | I _{op} | Po=50mW | - | 62 | 75 | mA | |
| Operating Voltage | V _{op} | - | - | 1.9 | 2.6 | Volts | |
| Slope Efficiency | η | 37.5mW-12.5mW | - | 1 | - | mW/mA | |
| | | I _{37.5mW} -I _{12.5mW} | | | | | |
| Monitor Current | I _m | Po=50mW | 0.05 | 0.12 | 0.5 | mA | |
| Beam Divergence (FWHM) | Parallel | θ // | Po=50mW | - | 11 | 16 | deg. |
| | Perpendicular | θ ⊥ | Po=50mW | - | 18 | 23 | deg. |
| Lasing Wavelength* | λ | Po=50mW | 820 | 830 | 840 | nm | |

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

■ Typical characteristic curves

