

D850-5I

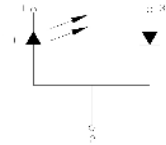
• 850nm 5mW 5.6mm laser diode •

Product Description

D850-5I is an 850nm MOCVD grown laser diode with quantum well structures. This reliable 5mW IR is suitable for medical and measurement applications.

Features

- Device: 850nm IR laser diode
- Power: 5mW
- Package Type: TO-18 (5.6mmΦ)



Absolute Maximum Rating (Tc=25°C)

| Characteristics | Symbols | Rating | Unit |
|-------------------------|---------|------------|------|
| Optical power | Po | 7 | mW |
| Reverse Voltage (Laser) | V | 2 | V |
| Reverse Voltage (PIN) | V | 30 | V |
| Operating Temperature | Top | -10 to +60 | °C |
| Storage Temperature | Tstg | -40 to +85 | °C |

Electrical and Optical Characteristics (Tc=25°C)

| Characteristics | Symbols | Min | Typ | Max. | Unit | Condition |
|-------------------------|-----------------|-----|-----|------|-------|-----------|
| Optical Power | Po | - | 5 | - | mW | - |
| Threshold Current | I _{th} | - | 10 | 20 | mA | Po=5mW |
| Operating Current | I _{op} | - | 22 | 35 | mA | Po=5mW |
| Operating Voltage | V _{op} | - | 2.0 | 2.5 | Volts | Po=5mW |
| Slope Efficiency | η | 0.4 | 0.7 | 1.0 | mW/mA | Po=2-5mW |
| Lasing Wavelength | λ | 840 | 850 | 860 | nm | Po=5mW |
| Beam Divergence | θ _∥ | 7.0 | 8.5 | 12 | deg | Po=5mW |
| | θ _⊥ | 23 | 30 | 35 | deg | Po=5mW |
| Beam Angle Deviation | θ _∥ | -3 | | 3 | deg | Po=5mW |
| | θ _⊥ | -3 | | 3 | deg | Po=5mW |
| Monitor Current | I _m | - | 0.2 | 0.70 | mA | Po=5mW |
| Emission Point Accuracy | ΔX | -60 | - | 60 | μm | |
| | ΔY | -60 | - | 60 | μm | |
| | ΔZ | -60 | - | 60 | μm | |
| Astigmatism | As | - | - | 15 | μm | |