

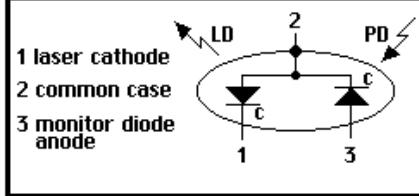
US-Lasers: 904nm-5mW - Infrared Laser Diode

[Back to Laser
Diodes](#)

INFRARED DIODE LASER DATA SHEETS

(Tc=25 °C)

ABSOLUTE MAXIMUM RATINGS -

| TECHNICAL DATA for LASER DIODE | |  Pin Out Diagram - Style A |
|--|--------|--|
| • Index Guided MQW Structure | | |
| • Wavelength: 904nm (Typ.) | | |
| • Optical Power: 5mW CW | | |
| • Threshold Current: 20mA (Typ.) | | |
| • Standard Package: 5.6mm | | |
| Infrared light output | 904nm | |
| Optical power output | 5mW CW | |
| Package Type | 5.6mm | |
| Built-in photo diode for monitoring laser output | | |

| Items | Symbols | Values | Unit |
|-----------------------------|---------|-----------|------|
| Optical output power | Po | 5 | mW |
| Laser diode reverse voltage | VLDR | 2 | V |
| Photo diode reverse voltage | VPDR | 30 | V |
| Operating temperature | Topr | -10 ~ +40 | °C |
| Storage temperature | Tstg | -40 ~ +85 | °C |

OPTICAL and ELECTRICAL CHARACTERISTICS - (Tc=25 °C)

| Items | Symbols | Min. | Typ. | Max. | Unit | Test Condition |
|------------------------------|---------|---------------------|------|------|------|----------------|
| Optical output power | Po | - | 5 | - | mW | - |
| Threshold current | Ith | 10 | 20 | 35 | mA | - |
| Operating current | Iop | 15 | 25 | 45 | mA | Po=5mW |
| Operating voltage | Vop | 2.0 | 2.4 | 2.7 | V | Po=5mW |
| Lasing wavelength | λ D | 894 | 904 | 914 | nm | Po=5mW |
| Beam divergence | θ F | 8 | 10 | 11 | deg | Po=5mW |
| Beam divergence | θ z | 25 | 31 | 40 | deg | Po=5mW |
| Slope Efficiency (mW/mA) | 0 | 0.4 | 0.5 | 0.7 | - | - |
| Monitor current | Im | 10 | 100 | 200 | μ A | Po=5mW,Vr=5V |
| Astigmatism | As | - | 11 | - | μ m | Po=5mW |
| MTTF | | 3000- 5,000 hrs. | | | | Po=5mW,NA=0.4 |
| Emitter Size | | 1 x 4 Microns | | | | |
| Emitter Distance to Cap Lens | | 0.3mm | | | | |
| Structure | | Index Guided | | | | |