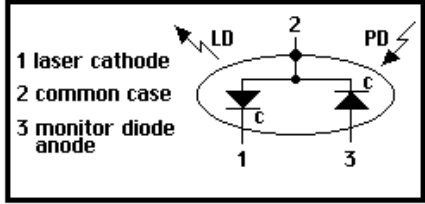


US-Lasers: 635nm-5mW - Red Laser Diode

[Back to Laser Diodes](#)

VISIBLE LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

| | | |
|--|--------|--|
| TECHNICAL DATA for LASER DIODE <ul style="list-style-type: none"> Index Guided MQW Structure Wavelength: 635nm (Typ.) Optical Power: 5mW CW Threshold Current: 40mA (Typ.) Standard Package: 5.6mm | |  |
| Visible laser diode light output | 635nm | Pin Out Diagram - Style A |
| 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 | 30 | 40 | 60 | mA | - |
| Operating current | Iop | 40 | 50 | 70 | mA | Po=5mW |
| Operating voltage | Vop | 2.0 | 2.4 | 2.7 | V | Po=5mW |
| Lasing wavelength | λ D | 630 | 635 | 645 | 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) | η | 0.4 | 0.5 | 0.7 | - | - |
| Monitor current | Im | 10 | 50 | 90 | μ A | Po=5mW, Vr=5V |
| Astigmatism | As | - | 11 | - | μ m | Po=5mW |
| MTTF | | | 3000-5,000 hrs. | | | Po=5mW, NA=0.4 |
| Emitter Distance to Cap Lens | | 0.3mm | | | | |
| Emitter Size | | 1 x 4 Microns | | | | |
| Structure | | Index Guided | | | | |