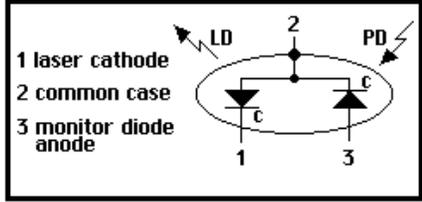


## US-Lasers: 808nm-5mW - Infrared Laser Diode

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### INFRARED DIODE LASER DATA SHEETS

ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

|  |        |  |
|--|--------|--|
| <b>TECHNICAL DATA for LASER DIODE</b> <ul style="list-style-type: none"> <li>Index Guided MQW Structure</li> <li>Wavelength: 808nm (Typ.)</li> <li>Optical Power: 5mW CW</li> <li>Threshold Current: 25mA (Typ.)</li> <li>Standard Package: 5.6mm</li> </ul> |        |  |
| Infrared light output  | 808nm  | <b>Pin Out Diagram - Style A</b>   |
| 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   |

|  |
|--|
| <b>OPTICAL and ELECTRICAL CHARACTERISTICS - (Tc=25 °C)</b> |
|--|

| 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           | 1.9  | 2.1             | 2.5  | V    | Po=5mW         |
| Lasing wavelength            | λ D           | 800  | 808             | 820  | nm   | Po=5mW         |
| Beam divergence              | θ F           | 8    | 11              | 15   | deg  | Po=5mW         |
| Beam divergence              | θ z           | 20   | 35              | 45   | deg  | Po=5mW         |
| Slope Efficiency (mW/mA)     | 0             | 0.1  | 0.3             | 0.6  |      | -              |
| 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  |      |                 |      |      |                |