

ROITHNER LASERTECHNIK

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RLT1610-100MPG TECHNICAL DATA



Pulsed Infrared Laser Diode

Lasing mode structure: **multi mode**

Lasing wavelength: **typ. 1610 nm**

Optical pulse power: **100 mW**

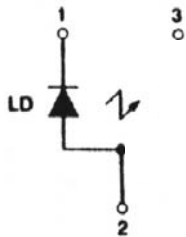
Package: **9 mm (SOT-148)**

NOTE!

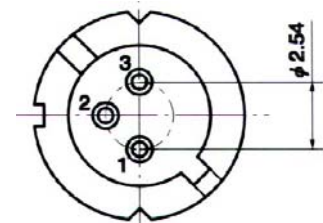
LASERDIODE
MUST BE COOLED!



PIN CONNECTION:



- 1) Laser diode cathode
- 2) Laser diode anode
- 3) Not connected



Absolute Maximum Ratings (T_c = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------|--------------------|------------|------|
| Optical Pulse Power | P _o | 150 | mW |
| LD Reverse Voltage | V _{R(LD)} | 1.5 | V |
| PD Reverse Voltage | V _{R(PD)} | - | V |
| Operating Temperature | T _C | -20 .. +40 | °C |
| Storage Temperature | T _{STG} | -40 .. +70 | °C |

Optical-Electrical Characteristics (T_c = 25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|-----------------------|-----------------|--------------------------|------|---------|------|-----------------|
| Emitting Aperture | A | pulsed mode | | 1 x 200 | | μm ² |
| Optical Pulse Power | P _o | T _p = 1 μs | | 100 | | mW |
| Lasing Wavelength | λ _p | P _{op} = 100 mW | 1605 | 1610 | 1615 | nm |
| Threshold Current | I _{th} | pulsed mode | 0.8 | 1.0 | 1.1 | A |
| Pulse Current | I _{op} | P _{op} = 100 mW | 2.9 | 3.0 | 3.2 | A |
| Pulse Length | T _p | P _{op} = 100 mW | 5 | 200 | 1000 | ns |
| Pulse Repetition Rate | P _r | P _{op} = 100 mW | | | 50 | kHz |
| Duty Cycle | D _p | P _{op} = 100 mW | | | 5 | % |
| Spectral Width FWHM | Δλ | P _{op} = 100 mW | 1.1 | 2.3 | 2.6 | nm |
| Beam Divergence | θ _∥ | P _{op} = 100 mW | 10 | 15 | 20 | ° |
| Beam Divergence | θ _⊥ | P _{op} = 100 mW | 25 | 30 | 40 | ° |