

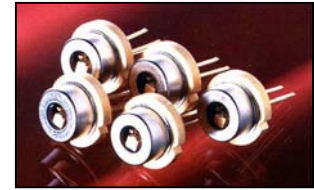
ROITHNER LASERTECHNIK

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RLT905-100GS TECHNICAL DATA



High Power Infrared Laser Diode

Lasing mode structure: **single mode**

Lasing wavelength: **typ. 905 nm**

Optical power: **100 mW**

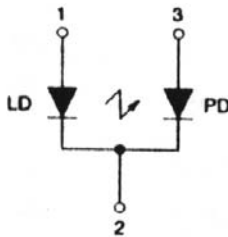
Package: **9 mm (SOT-148)**

NOTE!

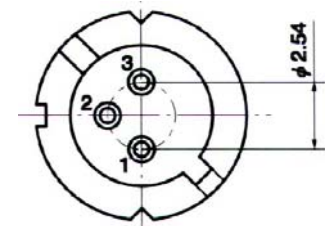
LASERDIODE
MUST BE COOLED!



PIN CONNECTION:



- 1) Laser diode anode
- 2) Laser diode cathode and photodiode cathode
- 3) Photodiode anode



Absolute Maximum Ratings (T_c = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------|--------------------|------------|------|
| Optical Output Power | P _o | 110 | mW |
| LD Reverse Voltage | V _{R(LD)} | 1.5 | V |
| PD Reverse Voltage | V _{R(PD)} | 10 | 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 | cw | | 1 x 5 | | μm ² |
| Optical Output Power | P _o | single mode | | 100 | | mW |
| Threshold Current | I _{th} | cw | | 30 | 45 | mA |
| Operation Current | I _{op} | P _o = 100 mW | | 140 | 160 | mA |
| Forward Voltage | U _f | P _o = 100 mW | 1.6 | 1.7 | 1.8 | V |
| Lasing Wavelength | λ _p | P _o = 100 mW | 900 | 905 | 910 | nm |
| Spectral Width FWHM | Δλ | P _o = 100 mW | | 0.2 | 0.3 | nm |
| Beam Divergence | θ _{//} | P _o = 100 mW | | 25 | | ° |
| Beam Divergence | θ _⊥ | P _o = 100 mW | | 40 | | ° |
| Monitor Current | I _m | P _o = 100 mW | 100 | 500 | 1500 | μA |