

# ROITHNER LASERTECHNIK

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## RLT9510MG TECHNICAL DATA



### High Power Infrared Laserdiode

Structure: **index guided single transverse mode**

Lasing wavelength: **950 nm typ.**

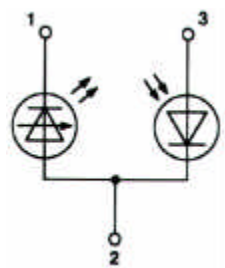
Output power: **10 mW cw**

Package: **5.6 mm, TO-18**

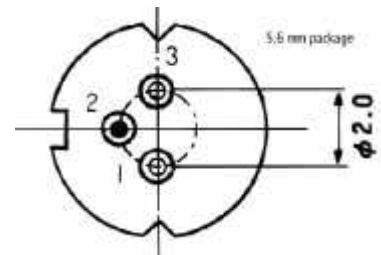


**NOTE!**  
LASERDIODE  
MUST BE COOLED!

#### PIN CONNECTION:



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



#### Maximum Ratings (T<sub>c</sub> = 25°C)

| CHARACTERISTIC             | SYMBOL             | RATING     | UNIT |
|----------------------------|--------------------|------------|------|
| Optical Output Power       | P <sub>o</sub>     | 10         | mW   |
| LD Reverse Voltage         | V <sub>R(LD)</sub> | 2          | V    |
| PD Reverse Voltage         | V <sub>R(PD)</sub> | 30         | V    |
| Operation Case Temperature | T <sub>c</sub>     | -10 .. +60 | °C   |
| Storage Temperature        | T <sub>STG</sub>   | -40 .. +85 | °C   |

#### Optical-Electrical Characteristics (T<sub>c</sub> = 25°C)

| CHARACTERISTIC    | SYMBOL          | TEST CONDITION         | MIN | TYP | MAX | UNIT  |
|-------------------|-----------------|------------------------|-----|-----|-----|-------|
| Threshold Current | I <sub>th</sub> | cw                     |     | 20  | 30  | mA    |
| Operation Current | I <sub>op</sub> | P <sub>o</sub> = 10 mW |     | 45  | 50  | mA    |
| Operating Voltage | V <sub>op</sub> | P <sub>o</sub> = 10 mW |     | 1.5 | 1.6 | V     |
| Lasing Wavelength | λ <sub>p</sub>  | P <sub>o</sub> = 10 mW | 942 | 950 | 955 | nm    |
| Beam Divergence   | θ <sub>  </sub> | P <sub>o</sub> = 10 mW | 7   | 8   | 12  | °     |
| Beam Divergence   | θ <sub>⊥</sub>  | P <sub>o</sub> = 10 mW | 30  | 33  | 38  | °     |
| Slope Efficiency  | η               | cw                     | 0.5 | 0.7 | 1   | mW/mA |
| Monitor Current   | I <sub>m</sub>  | P <sub>o</sub> = 10 mW |     | 450 | 600 | μA    |