

# ROITHNER LASERTECHNIK

A-1040 WIEN, FLEISCHMANNGASSE 9

TEL: +43 -1- 586 52 43 FAX: +43 -1- 586 41 43

e-mail: office@roithner-laser.com http://www.roithner-laser.com

## RLT80810G

### TECHNICAL DATA



## High Power Infrared Laserdiode

Structure: **AlGaAs/GaAs**

Lasing wavelength: **808 +/- 3 nm typ., singlemode**

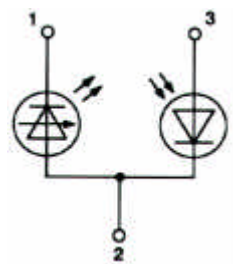
Typ. optical power: **10 mW**

Package: **9 mm**

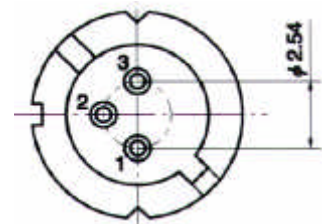


**NOTE!**  
LASERDIODE  
MUST BE COOLED!

### PIN CONNECTION:



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



### Maximum Ratings (Tc=25°C)

| CHARACTERISTIC        | SYMBOL      | RATING     | UNIT |
|-----------------------|-------------|------------|------|
| Optical Output Power  | $P_o$       | 12         | mW   |
| LD Reverse Voltage    | $V_{R(LD)}$ | 2          | V    |
| PD Reverse Voltage    | $V_{R(PD)}$ | 5          | V    |
| Operating Temperature | $T_c$       | -40 .. +40 | °C   |
| Storage Temperature   | $T_{STG}$   | -50 .. +60 | °C   |

### Optical-Electrical Characteristics (Tc = 25°C)

| CHARACTERISTIC          | SYMBOL           | TEST CONDITION        | MIN | TYP  | MAX | UNIT  |
|-------------------------|------------------|-----------------------|-----|------|-----|-------|
| Threshold Current       | $I_{th}$         |                       | 25  | 35   | 45  | mA    |
| Operation Current       | $I_{op}$         | $P_o = 10 \text{ mW}$ |     | 60   | 90  | mA    |
| Lasing Wavelength       | $\lambda_p$      | $P_o = 10 \text{ mW}$ | 805 | 808  | 811 | nm    |
| Beam Divergence         | $\theta_{//}$    | $P_o = 10 \text{ mW}$ |     | 8    |     | °     |
| Beam Divergence         | $\theta_{\perp}$ | $P_o = 10 \text{ mW}$ |     | 35   |     | °     |
| Differential Efficiency | $dP_o/dI_{op}$   | $P_o = 10 \text{ mW}$ |     | 0.75 |     | mW/mA |
| Monitor Current         | $I_m$            | $P_o = 10 \text{ mW}$ | 50  | 250  | 300 | μA    |