# ROITHNER LASERTECHNIK

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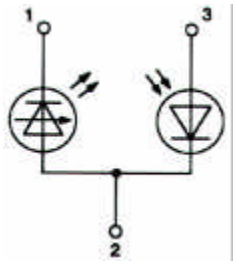
# RLT1060-50G TECHNICAL DATA

## High Power Infrared Laserdiode

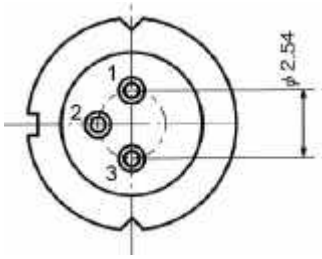
Structure: **QW structure**
Lasing wavelength: **1060 nm typ.**
Lasing Aperture: **1.5 x 3 µm²**
Max. optical power: **50 mW, single mode**
Package: **9 mm**

NOTE!
LASERDIODE
MUST BE COOLED!


### PIN CONNECTION:




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




**Absolute Maximum Ratings (Tc=25°C)**

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|---|---|---|
| Optical Output Power | $P_o$ | 55 | mW |
| LD Reverse Voltage | $V_{R(LD)}$ | 1.5 | V |
| PD Reverse Voltage | $V_{R(PD)}$ | 6 | V |
| Operating Temperature | $T_C$ | -40 .. +60 | °C |
| Storage Temperature | $T_{STG}$ | -40 .. +85 | °C |

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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Threshold Current | $I_{th}$ | cw | 15 | 20 | 35 | mA |
| Operation Current | $I_{op}$ | $P_o$ = 50 mW | | 120 | 200 | mA |
| Forward Voltage | $U_f$ | $P_o$ = 50 mW | | 1.8 | | V |
| Lasing Wavelength | $\lambda_p$ | $P_o$ = 50 mW | 1050 | 1060 | 1070 | nm |
| Spectral Width (FWHM) | $\Delta\lambda$ | $P_o$ = 50 mW | | 1.0 | 2.0 | nm |
| Beam Divergence | $\theta_{//}$ | $P_o$ = 50 mW | | 10 | | ° |
| Beam Divergence | $\theta_{\perp}$ | $P_o$ = 50 mW | | 40 | | ° |
| Differential Efficiency | $dP_o/dI_{op}$ | $P_o$ = 50 mW | | 0.2 | | mW/mA |
| Monitor Current | $I_m$ | $P_o$ = 50 mW | | 300 | 750 | µA |