

# ROITHNER LASERTECHNIK

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## RLT9810G TECHNICAL DATA



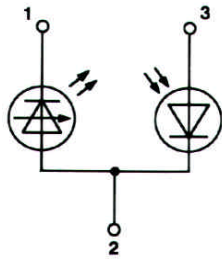
### Infrared Laserdiode

Lasing wavelength: **980 nm typ., single mode**  
 Max. optical power: **12 mW**  
 Package: **9 mm, SOT-148**

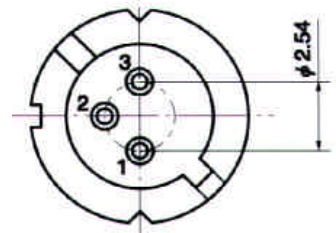
**NOTE!**  
 LASERDIODE  
 MUST BE COOLED!



#### 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 <sub>o</sub>	12	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	0.5	V
PD Reverse Voltage	V <sub>R(PD)</sub>	5	V
Operation Case Temperature	T <sub>C</sub>	-20 .. +40	°C
Storage Temperature	T <sub>STG</sub>	-60 .. +70	°C

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P <sub>o</sub>	-		10		mW
Threshold Current	I <sub>th</sub>	-	15	25	35	mA
Operation Current	I <sub>op</sub>	P <sub>o</sub> = 10 mW		35	60	mA
Operating Voltage	V <sub>op</sub>	P <sub>o</sub> = 10 mW	1.4	1.5	1.8	V
Lasing Wavelength	λ	P <sub>o</sub> = 10 mW	970	980	990	nm
Beam Divergence	θ <sub>//</sub>	P <sub>o</sub> = 10 mW	6	8	12	°
Beam Divergence	θ <sub>⊥</sub>	P <sub>o</sub> = 10 mW	25	30	35	°
Emitting Aperture	A	-	1 x 2	1 x 3	1 x 4	μm
Monitor Current	I <sub>m</sub>	P <sub>o</sub> = 10 mW	50	100		μA