

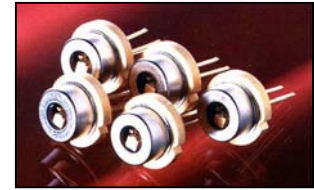
# ROITHNER LASERTECHNIK

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## RLT940-100GS TECHNICAL DATA



### High Power Infrared Laser Diode

Lasing mode structure: **single mode**

Lasing wavelength: **typ. 940 nm**

Optical power: **100 mW**

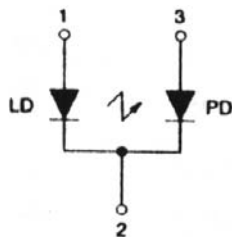
Package: **9 mm (SOT-148)**

**NOTE!**

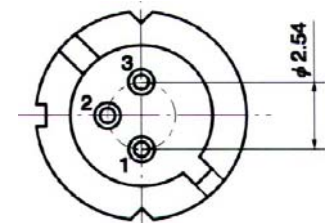
LASERDIODE  
MUST BE COOLED!



### PIN CONNECTION:



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



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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P <sub>o</sub>	130	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	1.5	V
PD Reverse Voltage	V <sub>R(PD)</sub>	10	V
Operating Temperature	T <sub>C</sub>	-20 .. +40	°C
Storage Temperature	T <sub>STG</sub>	-40 .. +70	°C

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Emitting Aperture	A	cw		1 x 5		μm <sup>2</sup>
Optical Output Power	P <sub>o</sub>	single mode		100		mW
Threshold Current	I <sub>th</sub>	cw	20	25	30	mA
Operation Current	I <sub>op</sub>	P <sub>o</sub> = 100 mW	140	150	160	mA
Forward Voltage	U <sub>f</sub>	P <sub>o</sub> = 100 mW	1.5	1.6	1.7	V
Lasing Wavelength	λ <sub>p</sub>	P <sub>o</sub> = 100 mW	930	940	945	nm
Spectral Width FWHM	Δλ	P <sub>o</sub> = 100 mW		0.2	0.3	nm
Beam Divergence	θ <sub>//</sub>	P <sub>o</sub> = 100 mW		25		°
Beam Divergence	θ <sub>⊥</sub>	P <sub>o</sub> = 100 mW		40		°
Monitor Current	I <sub>m</sub>	P <sub>o</sub> = 100 mW	100	500	1500	μA