

# 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

## RLT9850MG-N

## TECHNICAL DATA



### High Power Infrared Laserdiode

Structure: index guided, single transverse mode

Lasing wavelength: 980 nm typ.

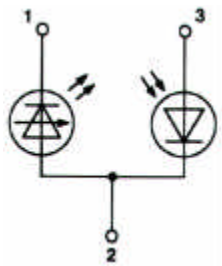
Output power: 50 mW cw

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>	50	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	10	15	30	mA
Operation Current	I <sub>op</sub>	P <sub>o</sub> = 50 mW		95	120	mA
Operating Voltage	V <sub>op</sub>	P <sub>o</sub> = 50 mW		1.5	1.7	V
Lasing Wavelength	λ <sub>p</sub>	P <sub>o</sub> = 50 mW	970	980	983	nm
Beam Divergence	θ <sub>//</sub>	P <sub>o</sub> = 50 mW	7	8	12	°
Beam Divergence	θ <sub>⊥</sub>	P <sub>o</sub> = 50 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> = 50 mW		0.75	1	mA