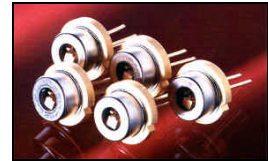


# ROITHNER LASERTECHNIK

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## RLT98500G TECHNICAL DATA



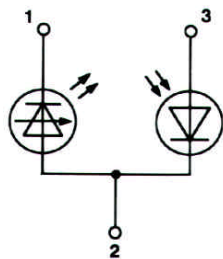
### High Power Infrared Laserdiode

Structure: **AlGaAs quantum well**  
 Lasing wavelength: **980 nm typ., multimode**  
 Max. optical power: **600 mW, 1 x 50  $\mu\text{m}^2$  aperture**  
 Package: **9 mm G**

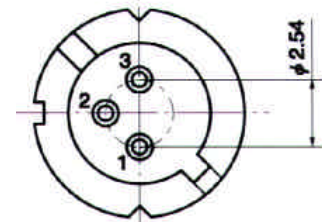
**NOTE!**  
 LASERDIODE  
 MUST BE COOLED!



#### 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	$P_o$	600	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	$T_C$	-40 .. +50	°C
Storage Temperature	$T_{STG}$	-70 .. +85	°C

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	$P_o$			500		mW
Threshold Current	$I_{th}$			300	350	mA
Operation Current	$I_{op}$	$P_o = 500 \text{ mW}$		690	820	mA
Operation Voltage	$U_{op}$	$P_o = 500 \text{ mW}$		1.5	1.8	V
Lasing Wavelength	$\lambda_p$	$P_o = 500 \text{ mW}$	960	980	990	nm
Spectral Width FWHM	$\Delta\lambda$	$P_o = 500 \text{ mW}$		10		nm
Beam Divergence	$\theta_{//}$	$P_o = 500 \text{ mW}$	7	10	13	°
Beam Divergence	$\theta_{\perp}$	$P_o = 500 \text{ mW}$	15	30	35	°
Differential Efficiency	$dP_o/dI_{op}$	$P_o = 500 \text{ mW}$	0.4	0.7	1.0	mW/mA
Monitor Current	$I_m$	$P_o = 500 \text{ mW}$	150	350	600	$\mu\text{A}$