

# 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

## RLT85100G TECHNICAL DATA



### High Power Infrared Laserdiode

Aperture:  $1.0 \times 3.0 \mu\text{m}^2$

Lasing wavelength: **850 nm typ., singlemode**

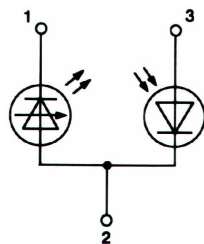
Optical power: **100 mW typ.**

Package: **9 mm**

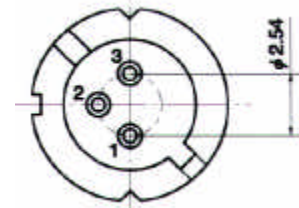
**NOTE!**  
LASERDIODE  
MUST BE COOLED!



### 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	$P_o$	110	mW
LD Reverse Voltage	$V_{R(LD)}$	0.5	V
PD Reverse Voltage	$V_{R(PD)}$	25	V
Operation Case Temperature	$T_C$	-50 .. +60	°C
Storage Temperature	$T_{STG}$	-60 .. +60	°C

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	$P_o$	kink free		100		mW
Threshold Current	$I_{th}$	cw		50	60	mA
Operation Current	$I_{op}$	$P_o = 100 \text{ mW}$		200	220	mA
Operating Voltage	$V_{op}$	$P_o = 100 \text{ mW}$		2.4	2.6	V
Lasing Wavelength	$\lambda_p$	$P_o = 100 \text{ mW}$	845	850	865	nm
Beam Divergence	$\theta_{//}$	$P_o = 100 \text{ mW}$	8	10	20	°
Beam Divergence	$\theta_{\perp}$	$P_o = 100 \text{ mW}$	20	35	40	°
Monitor Current	$I_m$	$P_o = 100 \text{ mW}$	200	250	500	$\mu\text{A}$