

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>

RLT85500G

TECHNICAL DATA



High Power Infrared Laserdiode

Aperture: 1.5 x 120 μm

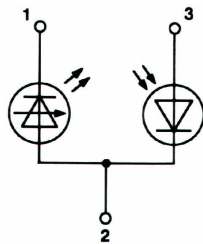
Lasing wavelength: 850 nm typ.

Optical power: 500 mW typ.

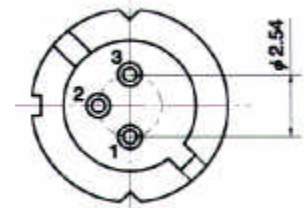
Package: 9 mm

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	550	mW
LD Reverse Voltage	$V_{R(LD)}$	0.5	V
PD Reverse Voltage	$V_{R(PD)}$	25	V
Operation Case Temperature	T_c	-20 .. +40	°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		500		mW
Threshold Current	I_{th}	cw		230	260	mA
Operation Current	I_{op}	$P_o = 500 \text{ mW}$	800	900	1100	mA
Operating Voltage	V_{op}	$P_o = 500 \text{ mW}$		1.8	2.2	V
Lasing Wavelength	λ_p	$P_o = 500 \text{ mW}$	800	850	870	nm
Spectral Width	$\Delta\lambda$	$P_o = 500 \text{ mW}$		2	3	nm
Beam Divergence	$\theta_{//}$	$P_o = 500 \text{ mW}$	8	12	20	°
Beam Divergence	$\theta_{\perp}$	$P_o = 500 \text{ mW}$	20	30	40	°
Monitor Current	I_m	$P_o = 500 \text{ mW}$	200		5000	μA