ROITHNER LASERTECHNIK

A-1040 VIENNA, SCHOENBRUNNER STRASSE 7, AUSTRIA
TEL: +43 -1- 586 52 43-0 FAX: +43 -1- 586 52 43-44
e-mail: office@roithner-laser.com http://www.roithner-laser.com

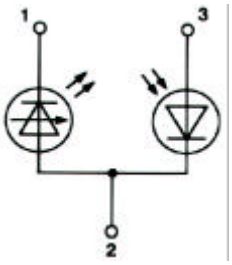
RLT91500G TECHNICAL DATA

High Power Infrared Laserdiode

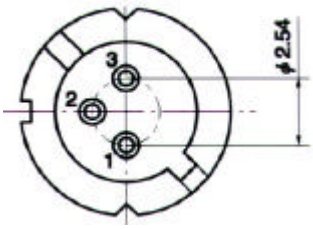
Structure: **AlGaAs quantum well**
Lasing wavelength: **915 nm typ., multimode**
Optical power: **500 mW, 1 x 50 µm² aperture**
Package: **9 mm**

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	500	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	cw		500		mW
Threshold Current	I_{th}	cw	80	100	120	mA
Operation Current	I_{op}	P_o = 500 mW	500	600	700	mA
Operation Voltage	U_{op}	P_o = 500 mW	1.6	1.8	2.0	V
Lasing Wavelength	λ_p	P_o = 500 mW	910	915	920	nm
Spectral Width FWHM	$\Delta\lambda$	P_o = 500 mW		10		nm
Beam Divergence	$\theta_{//}$	P_o = 500 mW		8		°
Beam Divergence	$\theta_{\perp}$	P_o = 500 mW	35	40	45	°
Differential Efficiency	dP_o/dI_{op}	P_o = 500 mW	0.8	1.0	1.2	mW/mA
Monitor Current	I_m	P_o = 500 mW	150	350	800	µA