

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

RLT1020-500G TECHNICAL DATA



High Power Infrared Laserdiode

Structure: **InGaAs quantum well**

Lasing wavelength: **1020 nm typ., multimode**

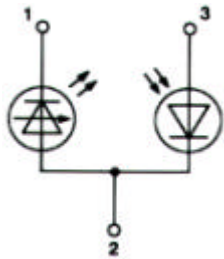
Max. optical power: **600 mW, 1 x 100 μm² aperture**

Package: **9 mm**

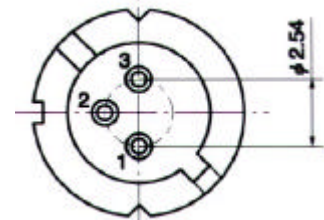
NOTE!
LASERDIODE
MUST BE COOLED!



PIN CONNECTION:



- 1) Laser diode cathode
- 2) Laser diode anode and photodiode cathode
- 3) Photodiode anode



Maximum Ratings (T_c=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 (T_c = 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 mW		790	820	mA
Operation Voltage	U _{op}	P _o = 500 mW		1.5	1.6	V
Lasing Wavelength	λ _p	P _o = 500 mW	990	1020	1040	nm
Spectral Width FWHM	Δλ	P _o = 500 mW		10		nm
Beam Divergence	θ _∥	P _o = 500 mW	7	10	13	°
Beam Divergence	θ _⊥	P _o = 500 mW	15	30	35	°
Differential Efficiency	dP _o /dI _{op}	P _o = 500 mW	0.4	0.7	1.0	mW/mA
Monitor Current	I _m	P _o = 500 mW	150	350	600	μA

