

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

RLT9050G TECHNICAL DATA



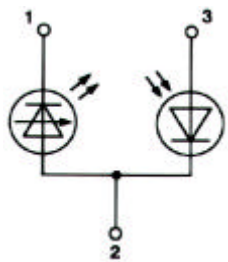
High Power Infrared Laserdiode

Structure: **GaAlAs double heterostructure**
 Lasing wavelength: **900 nm typ., singlemode**
 Max. optical power: **55 mW, 1 x 3 μm aperture**
 Package: **9 mm**

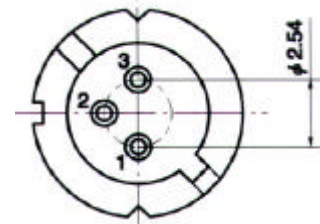
NOTE!
 LASERDIODE
 MUST BE COOLED!



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	55	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	T _C	-60 .. +60	°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			50		mW
Threshold Current	I _{th}			55	80	mA
Operation Current	I _{op}	P _o = 50 mW		180	200	mA
Operation Voltage	U _{op}	P _o = 50 mW		2.4		V
Lasing Wavelength	λ _p	P _o = 50 mW	870	900	910	nm
Beam Divergence	θ _∥	P _o = 50 mW	7	10	13	°
Beam Divergence	θ _⊥	P _o = 50 mW	15	30	35	°
Differential Efficiency	dP _o /dI _{op}	P _o = 50 mW	0.4	0.7	1.0	mW/mA
Monitor Current	I _m	P _o = 50 mW	150	350	1000	μA