

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

GBL981000G TECHNICAL DATA



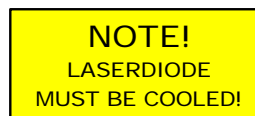
High Power Infrared Laserdiode

Structure: **High Efficiency MOVCD Quantum Well Design**

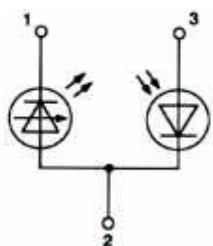
Lasing wavelength: **980 nm typ.**

Output power: **1 W, cw**

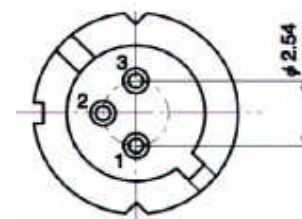
Package: **9 mm**



PIN CONNECTION:



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



Absolute Maximum Ratings (T_c=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P _o	1100	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	T _C	-10 .. +40	°C
Storage Temperature	T _{STG}	-40 .. +80	°C

Optical-Electrical Characteristics (T_c = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P _o	Kink free		1	1.1	W
Threshold Current	I _{th}	cw		250	300	mA
Operation Current	I _{op}	P _o = 1 W		1.6	1.8	A
Operation Voltage	V _{op}	P _o = 1 W		1.8	2.0	V
Slope Efficiency	η	cw	0.8	1.0	1.1	W/A
Lasing Wavelength	λ	P _o = 1 W	975	980	985	nm
Beam Divergence	θ _{//}	P _o = 1 W	5	9	12	°
Beam Divergence	θ _⊥	P _o = 1 W	30	35	45	°
Lasing Aperture	A	P _o = 1 W		100x1		μm ²
Operating Temperature	T _{op}	cw	20	25	40	°C
Monitor Current	I _m	P _o = 1 W		2.5	4.5	mA