

# ROITHNER LASERTECHNIK

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## RLT7605G TECHNICAL DATA

### Infrared Laserdiode

Structure: **GaAlAs** quantum well, lasing aperture  $1 \times 3 \mu\text{m}^2$

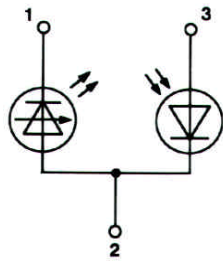
Lasing wavelength: **760 nm typ.**

Max. optical power: **10 mW, single mode**

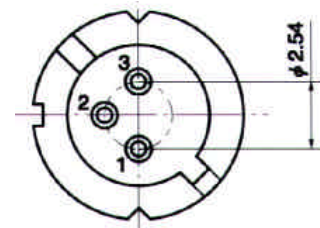
Package: **9 mm G**

**NOTE!**  
 LASERDIODE  
 MUST BE COOLED!  
 ELECTROSTATIC  
 SENSITIVE  
 DEVICE!

#### PIN CONNECTION:



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



#### Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	$P_o$	10	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	5	V
Operating Temperature	$T_c$	-40 .. +40	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-60 .. +85	$^\circ\text{C}$

#### Optical-Electrical Characteristics ( $T_c = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	$P_o$			5		mW
Threshold Current	$I_{th}$		30	40	50	mA
Operation Current	$I_{op}$	$P_o = 5\text{mW}$	60	75	80	mA
Operation Voltage	$U_{op}$	$P_o = 5\text{mW}$		2.3		V
Lasing Wavelength	$\lambda_p$	$P_o = 5\text{mW}$	755	760	765	nm
Beam Divergence	$\theta_{//}$	$P_o = 5\text{mW}$		8		$^\circ$
Beam Divergence	$\theta_{\perp}$	$P_o = 5\text{mW}$		30		$^\circ$
Differential Efficiency	$dP_o/dI_{op}$	$P_o = 5\text{mW}$		0.75		mW/mA
Monitor Current	$I_m$	$P_o = 5\text{mW}$	100	250	600	$\mu\text{A}$