

# ROITHNER LASERTECHNIK

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## RLT80010MG TECHNICAL DATA

### Infrared Laserdiode

Structure: **GaAlAs double heterostructure**  
 Lasing wavelength: **800 nm typ., single mode**  
 Max. optical power: **10 mW**  
 Package: **5.6 mm**

**NOTE!**

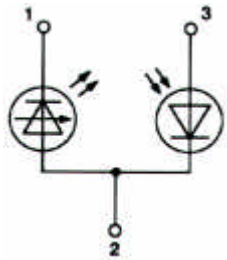
LASERDIODE  
MUST BE COOLED!

**ATTENTION**

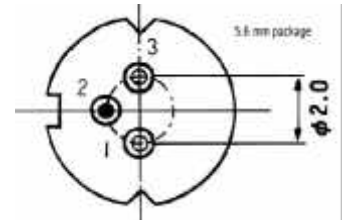
OBSERVE PRECAUTIONS  
FOR HANDLING

ELECTROSTATIC SENSITIVE DEVICE

### 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 <sub>o</sub>	10	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	T <sub>c</sub>	-10 .. +45	°C
Storage Temperature	T <sub>STG</sub>	-40 .. +85	°C

### Optical-Electrical Characteristics (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P <sub>o</sub>	kink free			10	mW
Threshold Current	I <sub>th</sub>	cw	20	25	40	mA
Operation Current	I <sub>op</sub>	P <sub>o</sub> = 10 mW		40	50	mA
Operation Voltage	V <sub>op</sub>	P <sub>o</sub> = 10 mW			2.5	V
Lasing Wavelength	λ <sub>p</sub>	P <sub>o</sub> = 10 mW	790	800	810	nm
Beam Divergence	θ <sub>∥</sub>	P <sub>o</sub> = 10 mW	5	8	11	°
Beam Divergence	θ <sub>⊥</sub>	P <sub>o</sub> = 10 mW	25	31	37	°
Astigmatism	A <sub>s</sub>	P <sub>o</sub> = 10 mW, NA=0.4		5		μm
Monitor Current	I <sub>m</sub>	P <sub>o</sub> = 5 mW, V <sub>r</sub> =5V		10		μA