

# ROITHNER LASERTECHNIK

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## S808200MG TECHNICAL DATA



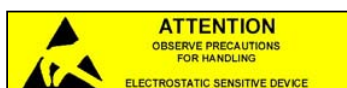
### High Power Infrared Laser Diode

Structure: multi mode, 30 x 1  $\mu\text{m}^2$  emitting aperture

Lasing wavelength: typ. 806 nm

Output power: 200 mW cw

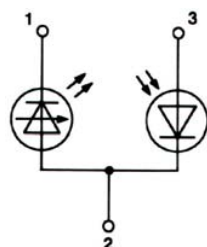
Package: 5.6 mm, TO-18



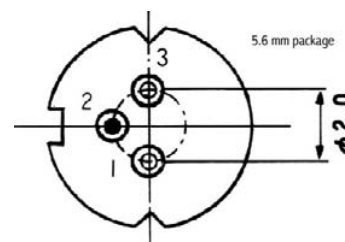
ATTENTION  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC SENSITIVE DEVICE

NOTE!  
LASERDIODE  
MUST BE COOLED!

### PIN CONNECTION:



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



### Absolute Maximum Ratings (T<sub>c</sub> = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P <sub>o</sub>	250	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operation Case Temperature	T <sub>C</sub>	-10 .. +40	°C
Storage Temperature	T <sub>STG</sub>	-40 .. +85	°C

### Optical-Electrical Characteristics (T<sub>c</sub> = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold Current	I <sub>th</sub>	cw	-	70	110	mA
Operation Current	I <sub>op</sub>	P <sub>o</sub> = 200 mW	-	300	350	mA
Operating Voltage	V <sub>op</sub>	P <sub>o</sub> = 200 mW	-	1.9	2.2	V
Lasing Wavelength	$\lambda_p$	P <sub>o</sub> = 200 mW	803	806	810	nm
Beam Divergence	$\theta_{//}$	P <sub>o</sub> = 200 mW	-	6	-	°
Beam Divergence	$\theta_{\perp}$	P <sub>o</sub> = 200 mW	-	32	40	°
Parallel Deviation Angle	$\Delta\theta_{//}$	P <sub>o</sub> = 200 mW	-	-	±3	°
Perpendicular Deviation Angle	$\Delta\theta_{\perp}$	P <sub>o</sub> = 200 mW	-	-	±3	°
Emission Point Accuracy	$\Delta X, \Delta Y, \Delta Z$	-	-	±80	-	$\mu\text{m}$
Slope Efficiency	$\eta$	63 mW – 190 mW	-	0.9	-	mW/mA
Monitor Current	I <sub>m</sub>	P <sub>o</sub> = 200 mW	1	2.5	6	mA