

# ROITHNER LASERTECHNIK

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## RLT1550-20G TECHNICAL DATA



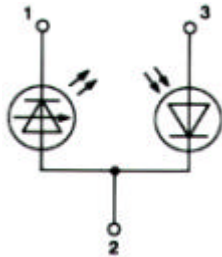
### High Power Infrared Laserdiode

Structure: **GaInAsP/InP SQW structure**  
 Lasing wavelength: **1550 nm, single mode**  
 Typ. optical power: **20 mW**  
 Package: **9 mm (SOT-148)**

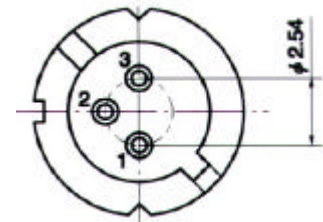
**NOTE!**  
 LASERDIODE  
 MUST BE COOLED!



#### PIN CONNECTION:



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



#### Absolute Maximum Ratings (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum LD Current	$I_f$	200	mA
Optical Output Power	$P_o$	40	mW
LD Reverse Voltage	$V_{R(LD)}$	1.5	V
PD Reverse Voltage	$V_{R(PD)}$	6	V
Operating Temperature	$T_C$	-20 .. +40	°C
Storage Temperature	$T_{STG}$	-40 .. +85	°C

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Lasing Aperture	A	cw		1 x 5		$\mu\text{m}^2$
Optical Output Power	$P_o$	cw		20		mW
Threshold Current	$I_{th}$	cw		55		mA
Operation Current	$I_{op}$	$P_o = 20 \text{ mW}$		160		mA
Forward Voltage	$U_f$	$P_o = 20 \text{ mW}$		2		V
Lasing Wavelength	$\lambda_p$	$P_o = 20 \text{ mW}$	1520	1550	1580	nm
Beam Divergence	$\theta_{//}$	$P_o = 20 \text{ mW}$		25		°
Beam Divergence	$\theta_{\perp}$	$P_o = 20 \text{ mW}$		40		°
Monitor Current	$I_m$	$P_o = 20 \text{ mW}$	> 20	100		$\mu\text{A}$