

ROITHNER LASERTECHNIK

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RLT8750G TECHNICAL DATA



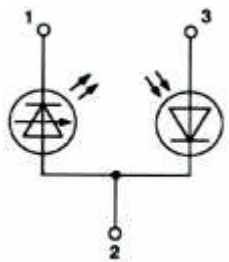
High Power Infrared Laserdiode

Structure: **GaAlAs double heterostructure**
 Lasing wavelength: **875 nm typ., singlemode**
 Max. optical power: **55 mW, 1 x 3 μm aperture**
 Package: **9 mm**

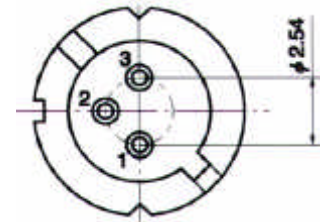
NOTE!
 LASERDIODE
 MUST BE COOLED!

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_o	55	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	T_C	-60 .. +60	°C
Storage Temperature	T_{STG}	-70 .. +85	°C

Optical-Electrical Characteristics (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P_o			50		mW
Threshold Current	I_{th}			55	80	mA
Operation Current	I_{op}	$P_o = 50 \text{ mW}$	80	90	100	mA
Operation Voltage	U_{op}	$P_o = 50 \text{ mW}$		2.4		V
Lasing Wavelength	λ_p	$P_o = 50 \text{ mW}$	870	875	880	nm
Beam Divergence	$\theta_{//}$	$P_o = 50 \text{ mW}$	7	10	13	°
Beam Divergence	θ_{\perp}	$P_o = 50 \text{ mW}$	15	30	35	°
Differential Efficiency	dP_o/dI_{op}	$P_o = 50 \text{ mW}$	0.4	0.7	1.0	mW/mA
Monitor Current	I_m	$P_o = 50 \text{ mW}$	250	300	500	μA