

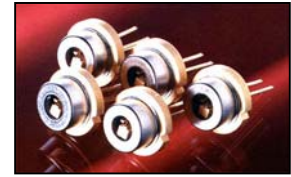
ROITHNER LASERTECHNIK

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RLT8530G TECHNICAL DATA



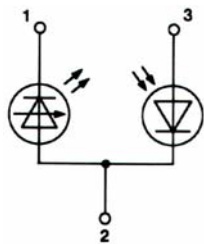
Infrared Laser Diode

Lasing aperture: **1.0 x 3.0 μm^2**
 Lasing wavelength: **typ. 850 nm, single mode**
 Optical power: **typ. 30 mW**
 Package: **9 mm**

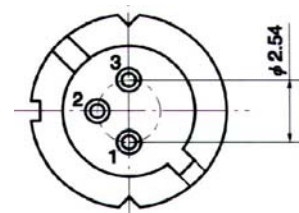
NOTE!
 LASERDIODE
 MUST BE COOLED!



PIN CONNECTION:



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



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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	35	mW
LD Reverse Voltage	$V_{R(LD)}$	0.5	V
PD Reverse Voltage	$V_{R(PD)}$	25	V
Operation Case Temperature	T_c	-40 .. +60	$^\circ\text{C}$
Storage Temperature	T_{STG}	-50 .. +60	$^\circ\text{C}$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P_o	kink free		30		mW
Threshold Current	I_{th}	cw		30	40	mA
Operation Current	I_{op}	$P_o = 30 \text{ mW}$	45	65	75	mA
Operating Voltage	V_{op}	$P_o = 30 \text{ mW}$		1.3	2.5	V
Lasing Wavelength	λ_p	$P_o = 30 \text{ mW}$	845	850	860	nm
Beam Divergence	$\theta_{//}$	$P_o = 30 \text{ mW}$	8	10	20	$^\circ$
Beam Divergence	θ_{\perp}	$P_o = 30 \text{ mW}$	20	35	40	$^\circ$
Monitor Current	I_m	$P_o = 30 \text{ mW}$	45	60	80	μA