

ROITHNER LASERTECHNIK

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RLT8420G TECHNICAL DATA



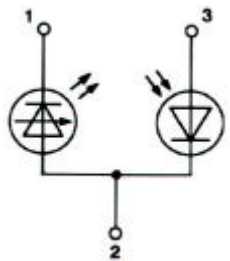
High Power Infrared Laserdiode

Structure: **AlGaAs/GaAs**
 Lasing wavelength: **840 nm typ.**
 Max. optical power: **20 mW, single mode**
 Package: **9 mm**

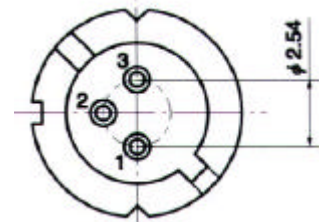
NOTE!
 LASERDIODE
 MUST BE COOLED!

ATTENTION
 OBSERVE PRECAUTIONS
 FOR HANDLING
 ELECTROSTATIC SENSITIVE DEVICE

PIN CONNECTION:



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



Absolute Maximum Ratings (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	22	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	5	V
Operating Temperature	T_C	-50 .. +60	°C
Storage Temperature	T_{STG}	-60 .. +85	°C

Optical-Electrical Characteristics (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P_o			20		mW
Threshold Current	I_{th}		30	40	50	mA
Operation Current	I_{op}	$P_o = 20 \text{ mW}$	55	75	85	mA
Lasing Wavelength	λ_p	$P_o = 20 \text{ mW}$	835	840	850	nm
Beam Divergence	$\theta_{//}$	$P_o = 20 \text{ mW}$		12		°
Beam Divergence	θ_{\perp}	$P_o = 20 \text{ mW}$		25		°
Differential Efficiency	dP_o/dI_{op}	$P_o = 20 \text{ mW}$		0.75		mW/mA
Monitor Current	I_m	$P_o = 20 \text{ mW}$	350	400	600	µA