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RLT91500G TECHNICAL DATA



High Power Infrared Laserdiode

Structure: **AlGaAs quantum well**

Lasing wavelength: **915 nm typ., multimode**

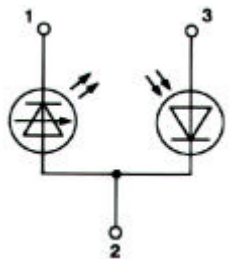
Optical power: **500 mW, 1 x 50 μm^2 aperture**

Package: **9 mm**

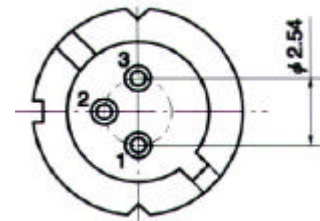
NOTE!
LASERDIODE
MUST BE COOLED!



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	500	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	T_C	-40 .. +50	°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	cw		500		mW
Threshold Current	I_{th}	cw	80	100	120	mA
Operation Current	I_{op}	$P_o = 500 \text{ mW}$	500	600	700	mA
Operation Voltage	U_{op}	$P_o = 500 \text{ mW}$	1.6	1.8	2.0	V
Lasing Wavelength	λ_p	$P_o = 500 \text{ mW}$	910	915	920	nm
Spectral Width FWHM	$\Delta\lambda$	$P_o = 500 \text{ mW}$		10		nm
Beam Divergence	$\theta_{//}$	$P_o = 500 \text{ mW}$		8		°
Beam Divergence	θ_{\perp}	$P_o = 500 \text{ mW}$	35	40	45	°
Differential Efficiency	dP_o/dI_{op}	$P_o = 500 \text{ mW}$	0.8	1.0	1.2	mW/mA
Monitor Current	I_m	$P_o = 500 \text{ mW}$	150	350	800	μA