



RLT1080-10G

- Infrared FP Radiation Source
- 1080 nm \pm 10 nm
- 10 mW CW
- 9 mm TO package, flat window
- Built in Monitor PD



Description

RLT1080-10G is a Laser Diode emitting at 1080 nm with rated output power of 10 mW CW at room temperature. The 9 mm TO package includes a cap and flat window, and contains a built in **monitor PD**.

Maximum Ratings

Parameter	Symbol	Values		Unit
		Min.	Max.	
Optical Output Power	P_O			mW
Operating Temperature	T_{CASE}	-10	+60	°C
Storage Temperature	T_{STG}	-40	+80	°C
Soldering Temperature	T_{SOLD}			°C

Specifications

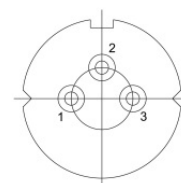
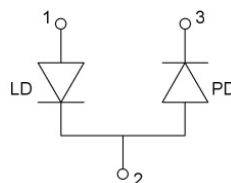
Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Central Wavelength	λ_C	1080	1080	1090	nm
Optical Output Power	P_O	-	10	-	mW
Emitting Area	WxH	3 x 1.5			μm
Threshold Current	I_{TH}	30	40	50	mA
Forward Current	I_{OP}	100	150	200	mA
Forward Voltage	U_{OP}	1.5	2.0	2.2	V
Beam Divergence	$\theta_{ }$	8	10	12	deg.
Beam Divergence	θ_{\perp}	25	30	35	deg.
Spectral Width (FWHM)	$\Delta\lambda$	1.0	2.0	5.0	nm
Static Alignment	$\Delta\alpha \parallel x$	-	-	$< \pm 3$	deg.
Positional Accuracy	$\Delta X, \Delta Y, \Delta Z$	-	-	± 100	μm
Mode Structure		SM			-
Slope Efficiency	η	-	0.5	-	mW/mA
Monitor Current	I_M	0.07	0.4	0.8	mA

* Wavelength drift under temperature change: $< 0.3 \text{ nm}/^\circ\text{C}$



Electrical Connection

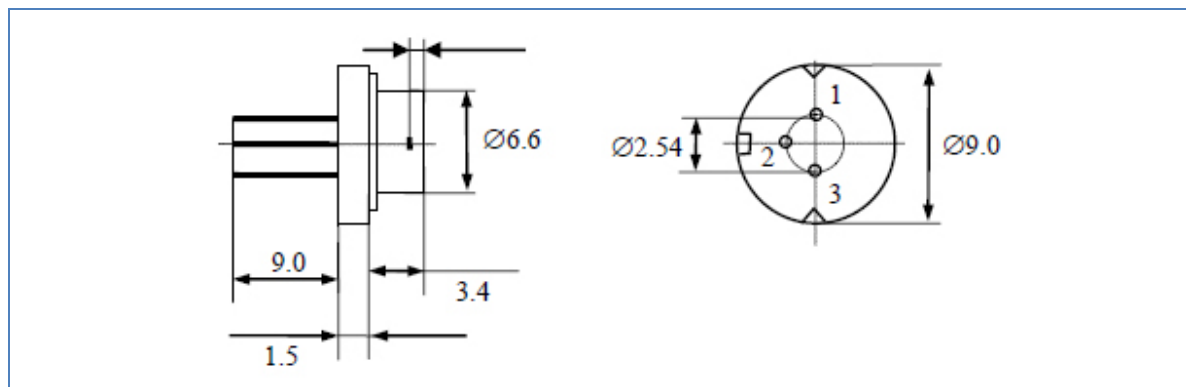
Lead	Description
PIN 1	LD Anode
PIN 2	LD Cathode, PD Anode (case)
PIN 3	PD Cathode



Bottom View



Drawing



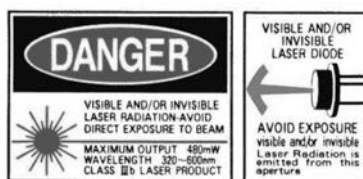
All dimensions in mm

Mounting Instruction

In order to maintain lifetime and stability of the laser diode it is essential to provide efficient heat management. Heat dissipation is possible through the base plate only. For long time stable operation proper contact between laser diode base plate and heat sink is mandatory.

Safety Advice

This laser module emits highly concentrated ultra violet light which can be **hazardous to the human eye**. This module is classified as **Class 3B laser product** according to IEC 60825-1 and 21 CFR Part 1040.10 **Safety Standards**. Actual laser light emitted and precautions necessary strongly depend on mode of operation.



This product is comply with 21 CFR Part 1040.10