



RLT1480-10G

- Infrared Laser Diode
- 1480 ±10 nm, 10 mW
- Single Mode
- 9 mm TO-Can



Description

RLT1480-10G is an infrared single mode laser diode, based on InGaAsP / InP-heterostructure, typical emitting at **1480 nm** and featuring an **integrated PD**. It comes in 9 mm TO-Can package, with AR coated window, AlN carrier and AuSn bonding, hermetically sealed and plated gold over nickel pins.

Absolute Maximum Ratings

Parameter	Symbol	Values	Unit
Optical Output Power	P_O	15	mW
Operating Current	I_{OP}	80	mA
PD Offset Voltage	$V_{REV\ max}$	9.0	V
PD Monitor Current	$I_{M\ max}$	1.0	mA
Operating Temperature	T_{CASE}	-0 – +40	°C
Storage Temperature	T_{STG}	-40 – +70	°C
Soldering Temperature *	T_{SLD}	200	°C

* must be completed within 3 seconds

Electro-Optical Characteristics

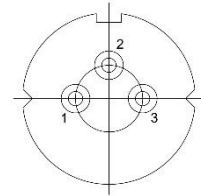
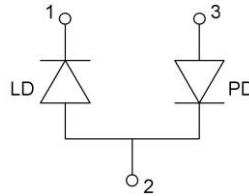
$T_{CASE} = 25^{\circ}C$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength *	λ_P	1470	1480	1490	nm
Spectral Width (FWHM)	$\Delta\lambda$		3	5	nm
Optical Output Power	P_O		10		mW
Emitter Size			5.0 x 1		μm
Operating Voltage	V_{OP}		1.5	2.0	V
Threshold Current	I_{TH}			35	mA
Operating Current	I_{OP}			60	mA
PD Monitor Current	I_M	20			μA
PD Sensitivity	S	0.2			$\mu A/mW$
PD Reverse Voltage	V_{PD}		5.0±0.5		V
Beam Divergence, Parallel (FWHM)	$\theta_{ }$			10	deg.
Beam Divergence, Perpendicular (FWHM)	θ_{\perp}			45	deg.
Lifetime (25°C, I_{OP} , CW)		>10000			hour



Pin Configuration

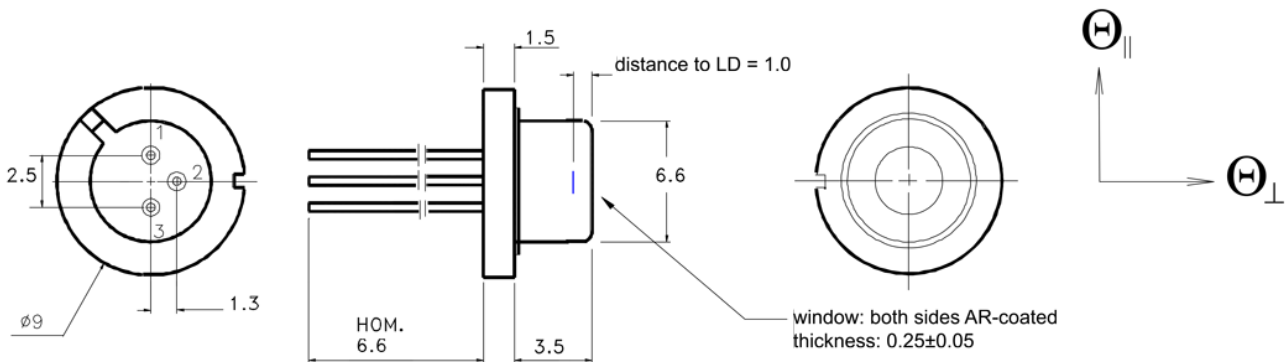
Pin	Description
1	LD Cathode
2	LD Anode, PD Cathode
3	PD Anode



bottom view

Outline Dimensions

9 mm TO-can



Dimensions: mm



Precautions

Safety

Warning: This LD is emitting invisible laser radiation!

Caution: Laser light emitted from any laser diode may be harmful to the human eye. Avoid looking directly into the laser diode's aperture when the diode is in operation.

Note: The use of optical lenses with this laser diode will increase eye hazard.



ESD Caution

Always do handle laser diodes with extreme care to prevent electrostatic discharge, the primary cause of unexpected diode failure. To prevent ESD related failures, it is strongly advised to always wearing wrist straps, and grounding all applicable work surfaces, when handling laser diodes.

Operating Considerations

It is strongly advised to only operate this laser diode with a current source. The current of a laser diode is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory. Laser diodes may be damaged by excessive drive currents or switching transients.

It is advised, to operate the laser diode at the lowest temperature possible, and to never exceed maximum specifications as outlined in the datasheet. Device degradation will accelerate with increased temperature. Proper heat sinking will greatly enhance stability and life time of the laser diode.

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The above specifications are for reference purpose only and subjected to change without prior notice