



## RLT1550-5MGS

- Infrared FP Laser Diode
- 1550 nm, 5 mW
- Single transverse mode
- 5.6mm TO-Can with flat glass window



### Description

**RLT1550-5MGS** is an infrared FP laser diode, with **single transverse mode** emission at typically 1550 nm and low operating current. **RLT1550-5MGS** comes in a 5.6 mm TO-Can with flat glass window and **integrated PD**. Two pin configuration options are available to choose from (see page 2)

### Maximum Rating\* ( $T_{CASE} = 25^{\circ}C$ )

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	$V_R$		2	V
Operating Temperature*	$T_{OPR}$	- 40	+ 85	$^{\circ}C$
Storage Temperature*	$T_{STG}$	- 40	+ 100	$^{\circ}C$
Soldering Temperature (max. 3s)	$T_{SOL}$		+ 260	$^{\circ}C$

\* operating close to or outside these conditions may damage the device

### Electro-Optical Characteristics ( $T_{CASE} = 25^{\circ}C$ )

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	$\lambda_P$	1530	1550	1570	nm
Optical Output Power	$P_O$		5		mW
Spectral Width (FWHM)	$\lambda$		2	5	nm
Beam Divergence (FWHM)	$\theta_{  } \times \theta_{\perp}$		25 x 38		deg
Operating Voltage	$V_F$		1.2	1.5	V
Threshold Current	$I_{th}$		10	20	mA
Operating Current	$I_F$		35	50	mA
Reverse Current (PD)	$I_{RP}$		0.3		mA



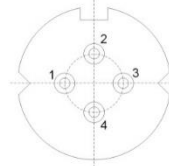
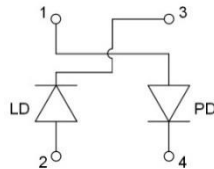


## Electrical Connection

### RLT1550-5MGS

### Bottom View

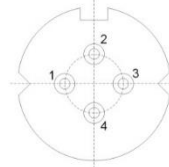
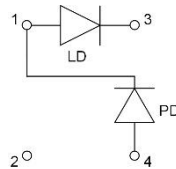
Pin #	Function
Pin 1	PD Anode
Pin 2	LD Anode, Case
Pin 3	LD Cathode
Pin 4	PD Cathode



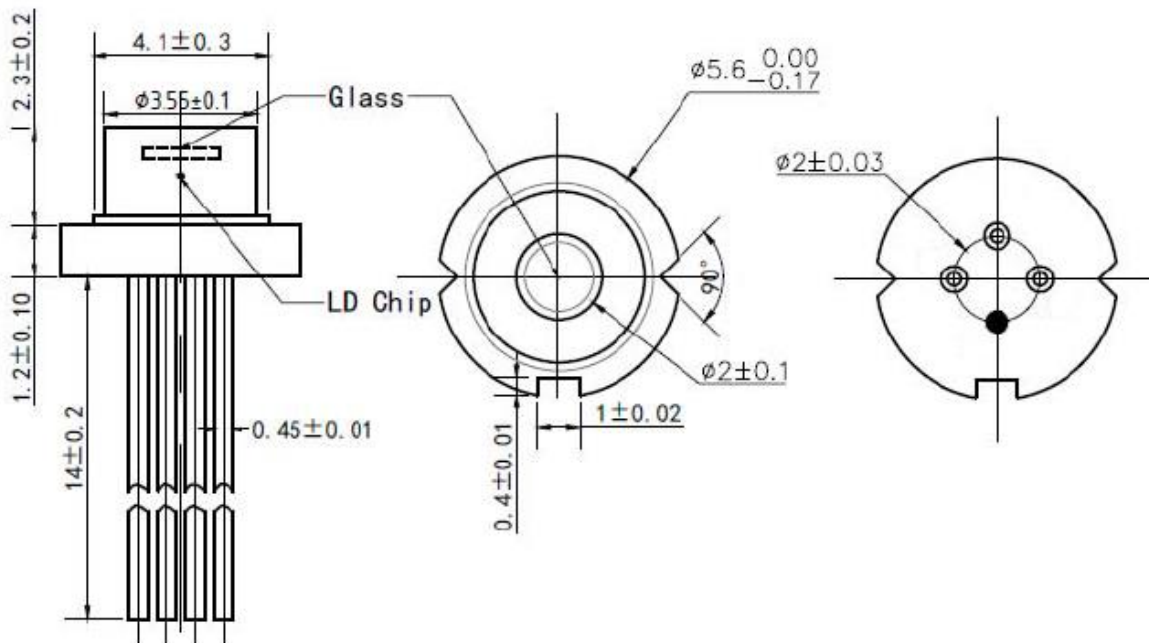
### RLT1550-5MGS-P2

### Bottom View

Pin #	Function
Pin 1	LD Anode, PD Cathode
Pin 2	Case
Pin 3	LD Cathode
Pin 4	PD Anode



## Outline Dimensions



All dimensions in mm



## Precautions

### Safety

**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 lifetime of the laser diode**

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