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## RLT520-1W5-GOP-FAC

- Green High Power Laser Diode
- 520 nm, 1.5 W
- Fast Axis Collimator
- Multi transverse mode
- TO5 package (9mm), Flat Window



### Description

**RLT520-1W5-GOP-FAC** is a blue high power laser diode, typically emitting at 520 nm. It features multi transverse mode emission and wide operating temperature of up to 60°C. A **line shaped** output beam is achieved by an integrated **Fast Axis Collimator (FAC)**. It is an efficient radiation source for many applications like laser projection, holography, metrology, or use in the biomedical field. **RLT520-1W5-GOP-FAC** comes in 9 mm TO-Can package **without PD**.

### Maximum Rating\*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	$V_R$		2	V
Operating Temperature*	$T_{OPR}$	- 0	+ 60	°C
Storage Temperature*	$T_{STG}$	- 40	+ 85	°C
Soldering Temperature (max. 3s)	$T_{SOL}$		+ 260	°C

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



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

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	$\lambda_P$	510	520	535	nm
Spectral Width	$\lambda_\Delta$		3.0		nm
Optical Output Power	$P_O$	1.3	1.5		W
Operating Voltage	$V_F$		5.0	6.0	V
Threshold Current	$I_{th}$		0.2	0.5	A
Operating Current	$I_F$		2.1	2.3	A
Slope Efficiency	$\eta$		0.8		W/A
Spatial Mode		Multi transverse mode			
Lens Type		Fast axis collimator			
Beam shape		Line shaped beam*			
Beam Divergence (FWHM)	parallel	$\theta_{  }$		10	deg.
	perpendicular	$\theta_{\perp}$		1	deg.

\* square shaped beam available optionally

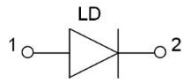




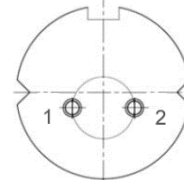
## Electrical Connection

### Pin Configuration (subject to change without notice)

Pin #	Function
Pin 1	LD Anode
Pin 2	LD Cathode

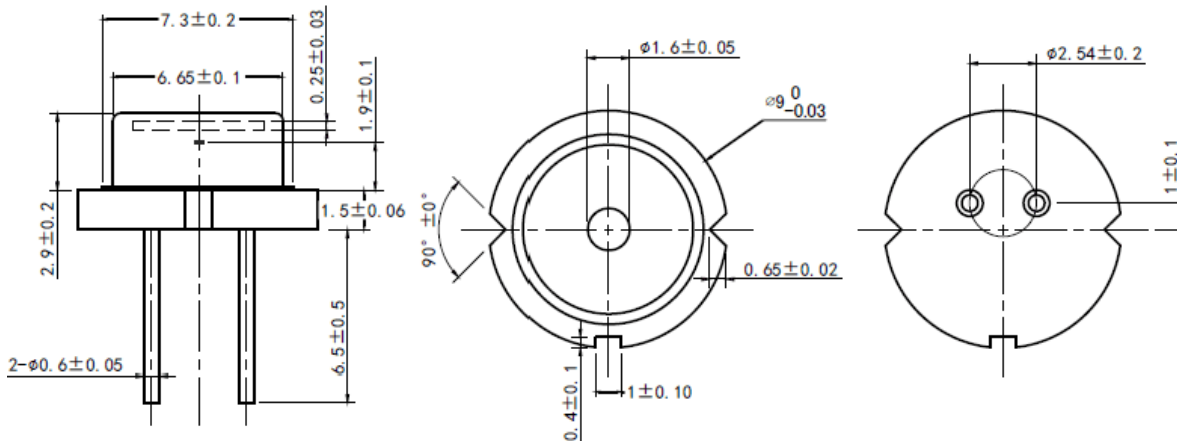


### Bottom View



## Outline Dimensions

### T05



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

**Proper heat sinking will greatly enhance stability and lifetime of the laser diode**