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RLT820-150MGS

- **IR Laser Diode**
- **820 nm, 150 mW**
- **Single Transverse Mode**
- **5.6 mm TO Package, Flat Window**

Description

RLT820-150MGS is an infrared laser diode, typically emitting at 820 nm. It features single mode emission and operating temperature range of up to 50°C. **RLT820-150MGS** comes in 5.6 mm TO-Can package with **integrated monitor PD.**

Maximum Rating*

Parameter	Symbol	Values Min.	Values Max.	Unit
Reverse Voltage	V_R		2	V
PD Reverse Voltage	V_{RPD}		25	V
Operating Temperature*	T_{OPR}	- 20	+ 50	°C
Storage Temperature*	T_{STG}	- 40	+ 85	°C
Soldering Temperature (3 s)	T_{SOL}		+ 260	°C

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

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter		Symbol	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength		**λ_P**	**810**	**820**	**830**	**nm**
Spectral Width		λ_Δ		3.0		**nm**
Optical Output Power		P_O		150		mW
Operating Voltage		V_F		2.3	2.8	V
Threshold Current		I_{th}		35	60	mA
Operating Current		I_F		200	230	mA
Slope Efficiency		η		0.9		W/A
Monitor Current		I_M		0.6		mA
Beam Divergence (FWHM)	parallel	$\Theta_{\parallel}$		8		deg.
	perpendicular	$\Theta_{\perp}$		28		deg.

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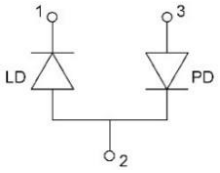
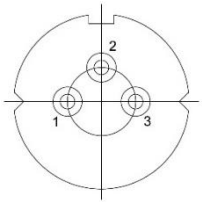
Electrical Connection

Pin Configuration

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

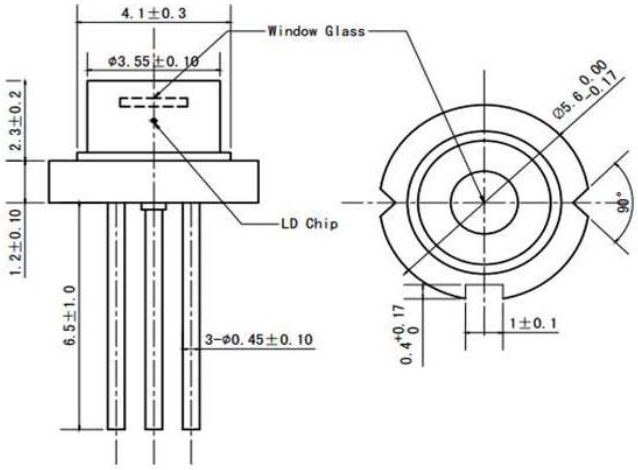


Bottom View



Outline Dimensions

5.6 mm TO-Can



All dimensions in mm

Precautions

Safety

Laser light emitted from any laser diode may be harmful to the human eye. **Avoid looking directly into the laser diode's aperture.** The use of optical lenses will increase eye hazard

ESD Caution

Always do handle laser diodes with care to **prevent electrostatic discharge**. We advise to **wearing wrist straps, and grounding all applicable work surfaces**, when handling laser diodes

Operating Considerations

Usage of current regulated drive circuits is mandatory We advise to operate this laser diode with a current source and heat sink, and to never exceed the maximum specifications as outlined in this datasheet.