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RLT785-120MGSP

- **Infrared Laser Diode**
- **785 nm, 120 mW, built in PD**
- **Single Mode**
- **5.6 mm TO Package, Flat Window**

RoHS COMPLIANT Pb Pb-Free

Description

RLT785-120MGSP is an IR laser diode, typically emitting at 785 nm. It features **single mode emission** and operating temperature range of up to 60°C. It is an efficient radiation source for many applications like laser projection, metrology, or use in the biomedical field. **RLT785-120MGSP** 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
Operating Temperature*	T_{OPR}	- 20	+ 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°C)

Parameter		Symbol	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength		λ_P	**775**	**785**	**800**	**nm**
Spectral Width		λ_Δ		2.0		**nm**
Optical Output Power		P_O		120		mW
Operating Voltage		V_F		2.0	2.4	V
Threshold Current		I_{th}		35	65	mA
Operating Current		I_F		150	170	mA
Monitor Current		I_M		0.2		mA
Slope Efficiency		η		1.0		W/A
Beam Divergence (FWHM)	parallel	$\Theta_{\parallel}$	5	9	12	deg.
	perpendicular	$\Theta_{\perp}$	35	36	42	deg.

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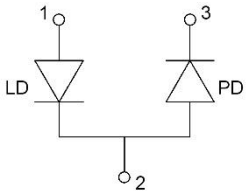
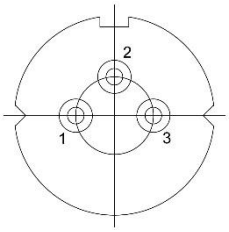
Electrical Connection

Pin Configuration

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

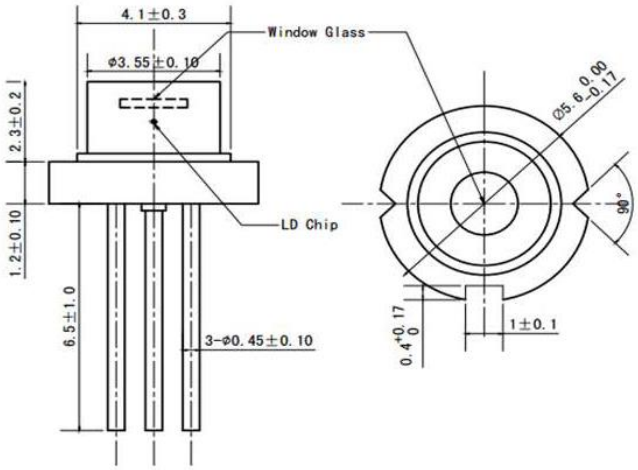


Bottom View



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.