



RLT785-100MGSN

- IR Laser Diode
- 785 nm, 100 mW
- Single Transverse Mode
- 5.6 mm TO Package, Flat Window



Description

RLT785-100MGSN is an infrared laser diode, typically emitting at 785 nm. It features single mode emission and operating temperature range of up to 60°C. RLT785-100MGSN comes in 5.6 mm TO-Can package with **integrated monitor PD**.

Maximum Rating*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	V_R		2	V
Operating Temperature*	T_{OPR}	- 20	+ 60	°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 ($T_{CASE} = 25^\circ\text{C}$)

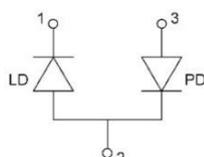
Parameter	Symbol	Values			Unit	
		Min.	Typ.	Max.		
Peak Wavelength	λ_P	775	785	800	nm	
Spectral Width	λ_Δ		2.0		nm	
Optical Output Power	P_O		100		mW	
Operating Voltage	V_F		2.0	2.4	V	
Threshold Current	I_{th}		30	60	mA	
Operating Current	I_F		140	160	mA	
Slope Efficiency	η		0.9		W/A	
Monitor Current	I_M		0.2		mA	
Beam Divergence (FWHM)	parallel	$\theta_{ }$	5	9	12	deg.
	perpendicular	θ_{\perp}	35	36	42	deg.



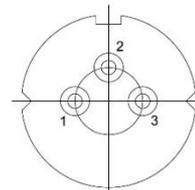
Electrical Connection

Pin Configuration

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



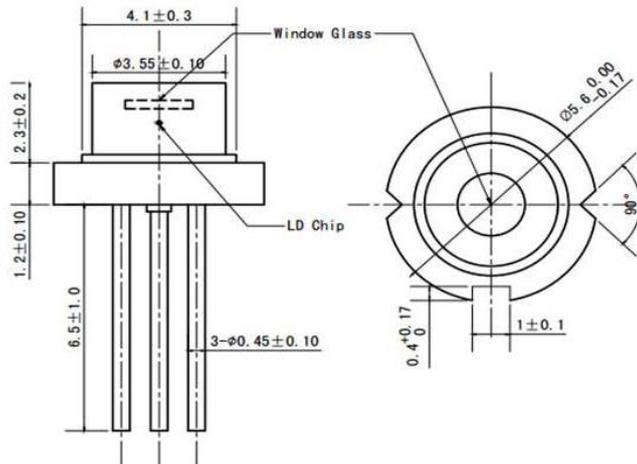
Bottom View





Outline Dimensions

5.6 mm TO-Can



All dimensions in mm

Precautions

Safety

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, we do advise to always **wearing wrist straps**, and **grounding all applicable work surfaces**, when handling laser diodes

Operating considerations

We do advise to operate this laser diode with a current source only. 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

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