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RLT1650-10MGS

- Infrared DFB Laser Diode
- 1650 nm, 10 mW
- Single transverse mode
- 5.6mm TO-Can with flat glass window



Description

RLT1650-10MGS is an infrared **distributed feedback (DFB)** laser diode, with **single transverse mode** emission at typically 1650 nm and low operating current. **RLT1650-10MGS** comes in a 5.6 mm TO-Can with flat glass window and **integrated PD**. Variants with non-spherical glass lens and reduced peak wavelength tolerance of ± 5 nm and ± 3 nm are available on request.

Maximum Rating*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	V_R		2	V
Reverse PD Voltage	V_{RP}		15	V
Operating Temperature*	T_{OPR}	- 10	+ 50	°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	λ_P	1640	1650	1660	nm
Optical Output Power	P_O		10		mW
Spectral Width (FWHM)	λ		0.3	1	nm
Operating Voltage	V_F		1.4	1.7	V
Threshold Current	I_{th}		5	15	mA
Operating Current	I_F		80	90	mA
Beam Divergence (FWHM)	parallel	$\Theta_{ }$	25		deg.
	perpendicular	Θ_{\perp}	35		deg.

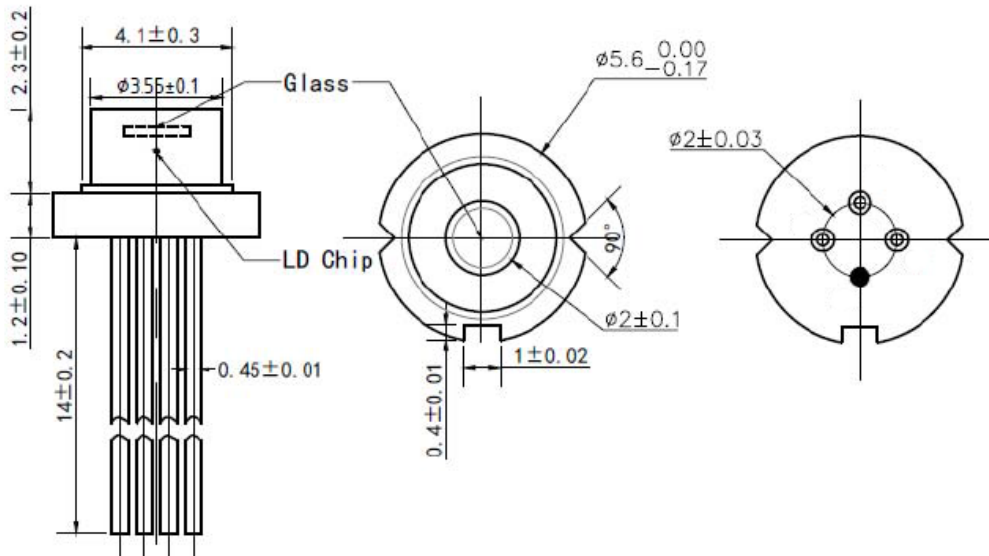


Electrical Connection

Pin Configuration		Bottom View	
Pin #	Function		
Pin 1	PD anode		
Pin 2	LD anode (case)		
Pin 3	LD cathode		
Pin 4	PD cathode		



Outline Dimensions



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.