



RLT520-80MGS

- Green Laser Diode
- 520 nm, 80 mW
- Single Transverse Mode
- 5.6 mm TO Package
- Integrated Monitor PD



Description



RLT520-80MGS is a green **single transverse mode** laser diode, based on InAlGaN structure, typically emitting at 520 nm, with an output power of 80 mW, and max. allowed operating temperature of 60°C. **RLT520-80MGS** comes in 5.6 mm TO-Can package with **integrated monitor photodiode**.

Maximum Rating*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Operating Temperature*	T_{OPR}	- 10	+ 60	°C
Storage Temperature*	T_{STG}	- 40	+ 85	°C
LD Reverse Voltage	U_R		2	V
Soldering Temperature ($t_{max} = 3$ s)	T_{SOL}		+ 265	°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	515	520	530	nm
Optical Output Power (CW)	P_O		80		mW
Spectral Width (FWHM)	λ_d		2		nm
Operating Voltage	U_F		7.0	8.0	V
Threshold Current	I_{th}		55		mA
Operating Current	I_F		160	180	mA
Slope Efficiency	η_S		0.80		W/A
Beam Divergence (FWHM)	parallel	$\Theta_{ }$	10		deg.
	perpendicular	Θ_{\perp}	22		deg.



Electrical Connection

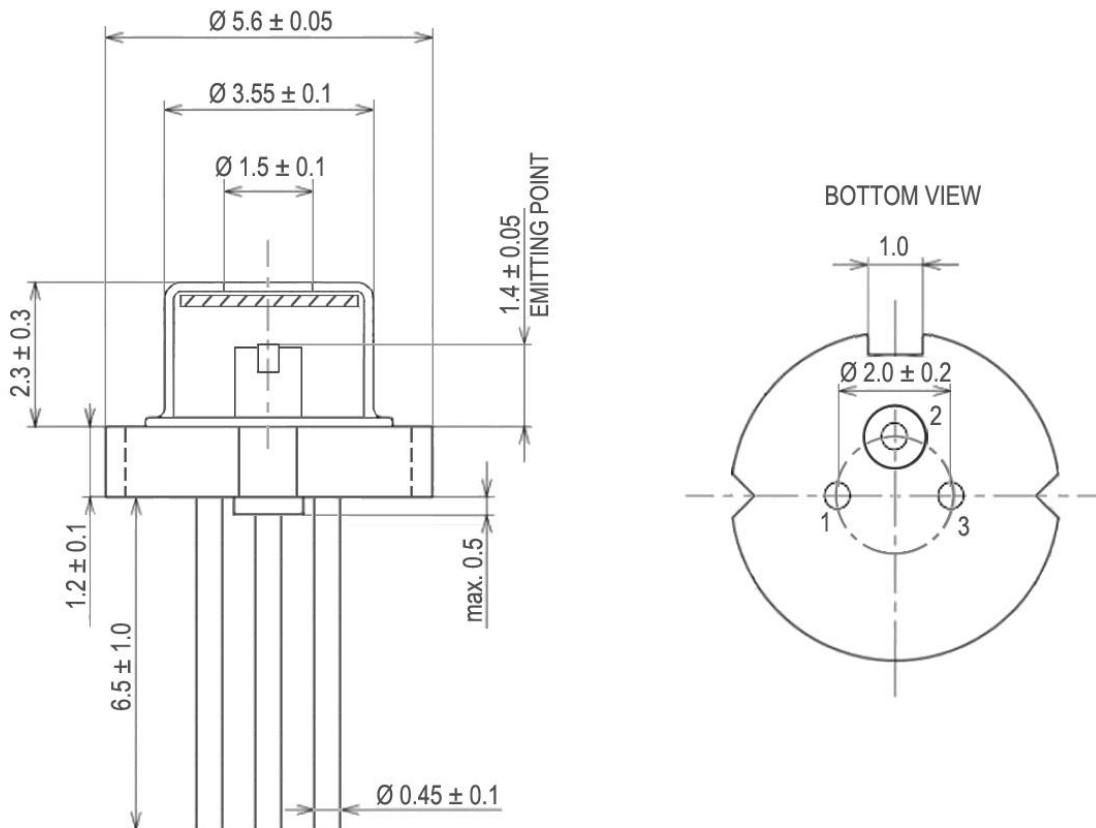
Pin Configuration		Bottom View	
Pin #	Function		
Pin 1	LD cathode		
Pin 2 [case]	LD anode, PD cathode		
Pin 3	PD anode		





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