



## RLT520-140MGE

- Green Laser Diode
- 520 nm, 140 mW
- Single Transverse Mode
- 5.6 mm TO Package



### Description

**RLT520-140MGE** is a green **single transverse mode** laser diode, based on InAlGaN structure, typically emitting at 520 nm, with an output power of 140 mW, and max. allowed operating temperature of 60°C. **RLT520-140MGE** comes in 5.6 mm TO-Can package.

### 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.	
<b>Peak Wavelength</b>	$\lambda_P$	<b>515</b>	<b>520</b>	<b>535</b>	nm
Optical Output Power (CW)	$P_O$		140		mW
Spectral Width (FWHM)	$\lambda_d$		2		nm
Operating Voltage	$U_F$		7	8	V
Threshold Current	$I_{th}$		70	100	mA
Operating Current	$I_F$		300	330	mA
Slope Efficiency	$\eta_S$		0.7		W/A
Beam Divergence (FWHM)	parallel	$\Theta_{  }$	10		deg.
	perpendicular	$\Theta_{\perp}$	23		deg.



### Electrical Connection

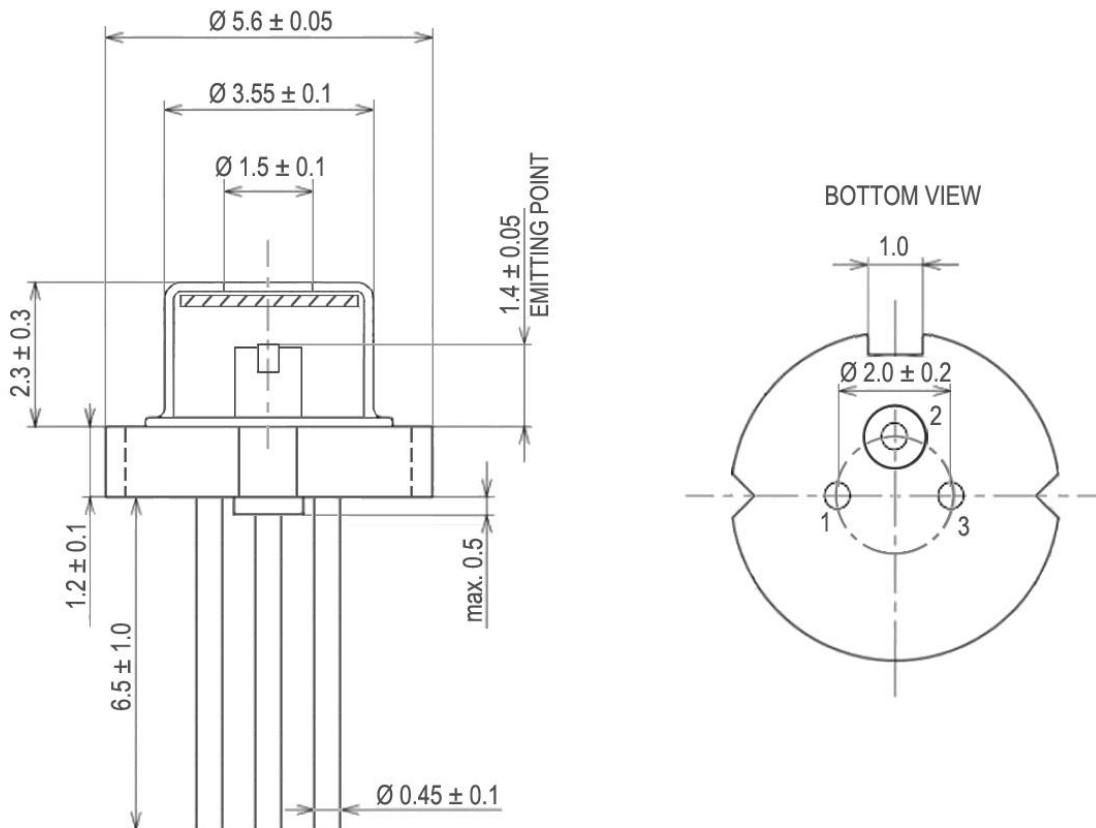
Pin Configuration		Bottom View	
Pin #	Function		
Pin 1	LD anode		
Pin 2 [case]	not connected		
Pin 3	LD cathode		





## 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**