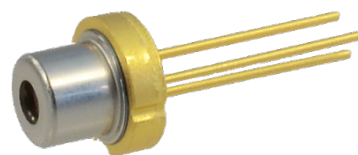




## NLD52100SG

- Green Light Emission Source
- 520 nm, 100 mW
- Multi-Mode
- RoHS Compliant
- without Photodiode
- ESD Protection



### Description

**NLD52100SG** is a green multi-mode laser diode, typically emitting at 520 nm, with rated output power of 100 mW. **NLD52100SG** features integrated ESD protection device, and comes in 3.8mm TO-Can package without monitor diode. **NLD52100SG** is RoHS compliant.

### Maximum Rating ( $T_{CASE} = 25^{\circ}C$ )

Parameter	Symbol	Values		Unit
		Min.	Max.	
Optical Output Power	$P_O$		100	mW
Allowable Reverse Current	$I_R$		85	mA
Storage Temperature	$T_{STG}$	- 20	+ 80	$^{\circ}C$
Operating Case Temperature	$T_C$	0	+ 40	$^{\circ}C$

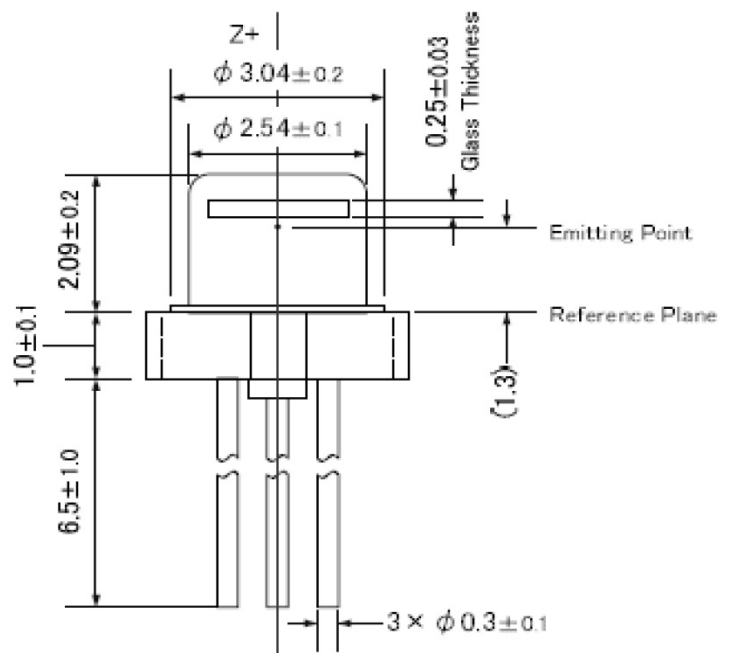
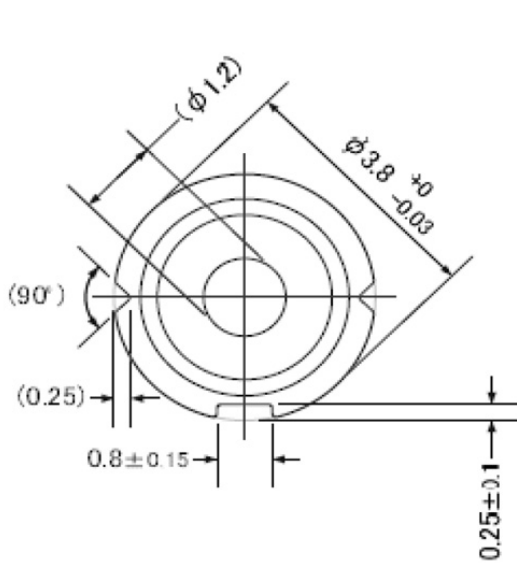
### Electro-Optical Characteristics ( $T_{CASE} = 25^{\circ}C$ )

Parameter	Symbol	Values			Unit	
		Min.	Typ.	Max.		
<b>Dominant Wavelength</b>	$\lambda_P$	<b>510</b>	<b>520</b>	<b>530</b>	<b>nm</b>	
Radiated Power	$P_O$		100		W	
Forward Voltage	$V_F$		6		V	
Threshold Current	$I_{TH}$		170		mA	
Operating Current	$I_O$		350		mA	
Slope Efficiency	$\eta$		0.86		W/A	
Beam Divergence	Parallel	$\theta_{\parallel}$	6	8.5	12	deg.
	Perpendicular	$\theta_{\perp}$	18	12	25	deg.
Beam Pointing Accuracy	Perpendicular	$\Delta\theta_{\perp}$	- 3		3	deg.

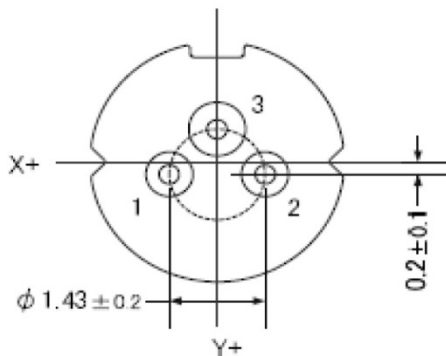


## Outline Dimensions

### 3.8 mm TO-Can



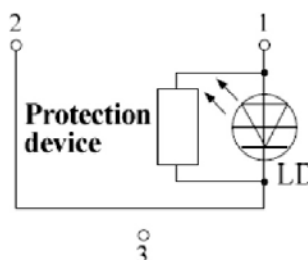
#### Bottom View:



All dimensions in mm

## Electrical Layout

Pin #	Function
Pin 1	LD Anode
Pin 2	LD Cathode
Pin 3	not connected





## Precautions

### Static Electricity:

Laser diodes are sensitive to electrostatic discharge (ESD). Precautions against ESD must be taken when handling or operating laser diodes. Surge voltage or electrostatic discharge can result in complete failure of the device.



### Safety of Laser light:

During operation this laser diode does emit **highly concentrated blue light**, which is **hazardous to human skin and eyes**. Skin and Eyes must not be exposed to direct or indirect laser light at any time. **Protective safety glasses are recommended.**

This laser diode is classified **Class 3B according to IEC60825-1 and 21 Part 1040.10 Safety Standards**. It is advised to attach a warning label on products/systems that do utilize this laser diode:



### Operation:

**Do only operate this laser diode with a current source.**

Running these laser diode from a voltage source *will* result in complete failure of the device.

Current of a laser diode is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory.

**Laser diode must be cooled !!**