



NLD521000G

- Green Light Emission Source
- 525 nm, 1 W
- Multi-Mode
- RoHS Compliant
- without Photodiode



Description

NLD521000G is a green multi-mode laser diode, typically emitting at 525 nm, with rated output power of 1.0 W. **NLD521000G** comes in 9mm TO-Can package without monitor diode, and is RoHS compliant

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

Parameter	Symbol	Values		Unit
		Min.	Max.	
Forward Current ($T_A=25^{\circ}C$)	I_F		1.8	A
Allowable Reverse Current	I_R		100	mA
Storage Temperature	T_{STG}	- 20	+ 80	$^{\circ}C$
Operating Case Temperature	T_C	0	+ 40	$^{\circ}C$

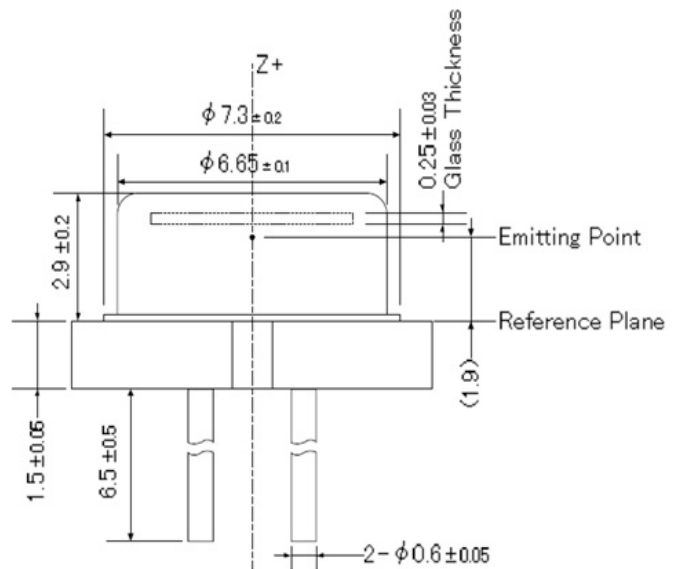
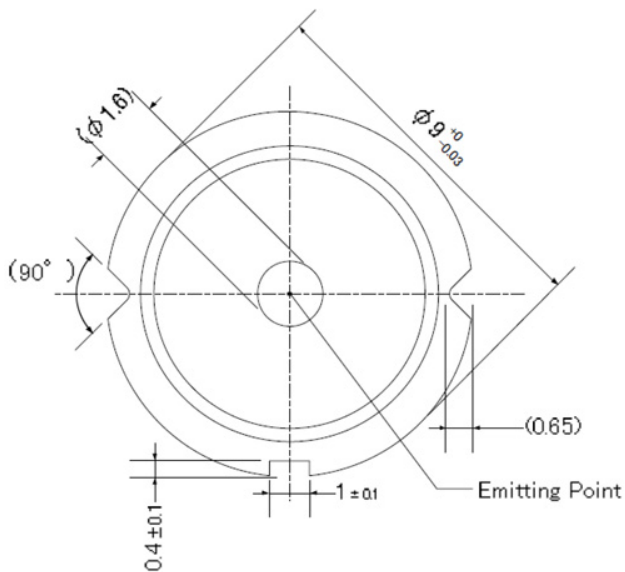
Electro-Optical Characteristics ($T_{CASE} = 25^{\circ}C$, $I_F = 1.6 A$)

Parameter	Symbol	Values			Unit	
		Min.	Typ.	Max.		
Dominant Wavelength	λ_P	510	525	530	nm	
Radiated Power	P_O		1.0		W	
Forward Voltage	V_F		4.6		V	
Threshold Current	I_{TH}		350		mA	
Slope Efficiency	η		0.82		W/A	
Beam Divergence	Parallel	θ_{\parallel}	7	12	20	deg.
	Perpendicular	θ_{\perp}	37	45	53	deg.
Beam Pointing Accuracy	Perpendicular	$\Delta\theta_{\perp}$	- 6		6	deg.

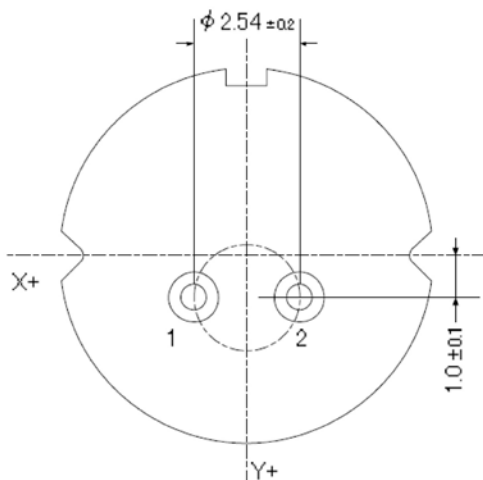


Outline Dimensions

9mm TO-Can



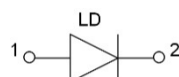
Bottom View:



All dimensions in mm

Electrical Layout

Pin #	Function
Pin 1	LD Anode
Pin 2	LD Cathode





Precautions

Static Electricity:

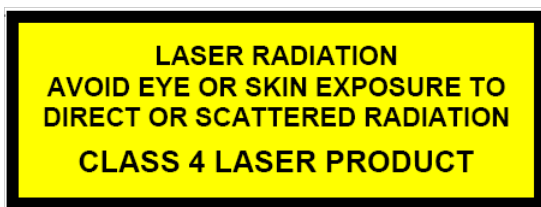
Laser diodes are sensitive to electrostatic discharge (ESD). Precautions against ESD must be taken when handling or operating laser diodes. Surge voltage or electrostatic discharge can result in complete failure of the device.



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 4 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 !!