

- High Power CW Operation- 150mW (175mW at 5°C)
- Highly Visible to the Eye
- Wavelength 627 ±3nm Standard

The LDX-2106-627 laser diode is a high power, multimode, visible red laser diode. These AlGaInP broad-area, gain-guided lasers are produced using MOCVD growth which offers proven reliability. The low 627nm wavelength of these devices is nearly ten times more visible to the eye than standard 670nm laser diodes.

Because these devices are more sensitive to operating temperature than longer wavelength devices, it is essential that the lasers be operated with adequate cooling. An operating temperature of 10 °C is recommended. At a reduced operating temperature of 5 °C, the devices may be operated at 175mW. The efficiency and lifetime of the devices will be improved with even lower operating temperatures.

These devices are available on an open heatsink package, or in a TO-3 package which has an integral thermoelectric cooler, thermistor, and monitor photodiode. Other package options are available; please inquire.

Device ratings:

Parameter	Min.	Typ.	Max.	Units
Output Power at 5°C		175		mW
Output Power at 10°C		150		mW
Output Power at 15°C		125		mW
Threshold Current at 10°C	500	600	700	mA
Operating Current at 10°C, 150mW	800	1000	1200	mA
Operating Temperature	-20	10	15	°C
Device Lifetime at 10°C, 150mW	2000			hours

Device characteristics at 10°C and at 150 mW output power:

Parameter	Min.	Typ.	Max.	Units
Forward Voltage	2.1	2.3	2.6	Volts
Wavelength	624	627	630	nm
Spectral Width		1	3	nm (FWHM)
Divergence- Parallel		7	9	degrees (FWHM)
Divergence- perpendicular	40	50	52	degrees (FWHM)
Polarization Ratio		>50:1		
Aperture Size		60 x 1		µm
Slope Efficiency	0.25	0.40	0.50	mW/mA