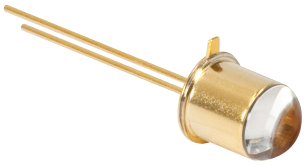
# LED with Ball Lens, 395 nm

**LED395L**



## Description

The LED395L is an InGaN LED mounted in a TO-18 package with a spherical glass lens. It is designed for a relatively narrow viewing angle.

## Specifications

| Absolute Max Ratings | |
|---|---|
| **Specification** | **Max** |
| **Reverse Voltage** | 3 V |
| **DC Forward Current** | 30 mA |
| **Pulsed Forward Current**[a] | 50 mA |
| **Operating Case Temperature** | -30 to 85 °C |
| **Storage Temperature** | -30 to 100 °C |

| Specifications[b] | | | |
|---|---|---|---|
| | **Min** | **Typical** | **Max** |
| **Operating Current (Continuous)** | - | 20 mA | 30 mA |
| **Forward Voltage at 20 mA** | - | 3.5 V | 4 V |
| **Optical Output Power at 20 mA** | - | 6 mW | - |
| **Viewing Half Angle** | - | 16° | - |
| **Peak Wavelength** | 388 nm | 395 nm | 400 nm |
| **Bandwidth (FWHM)** | - | 15 nm | - |

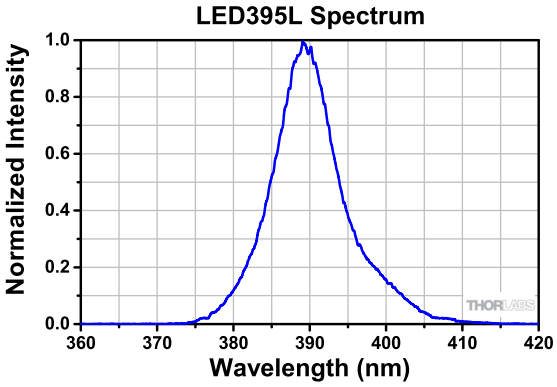
a. Pulsed Forward Current Condition: Duty Cycle = 1% and Pulse Width = 10 µs.

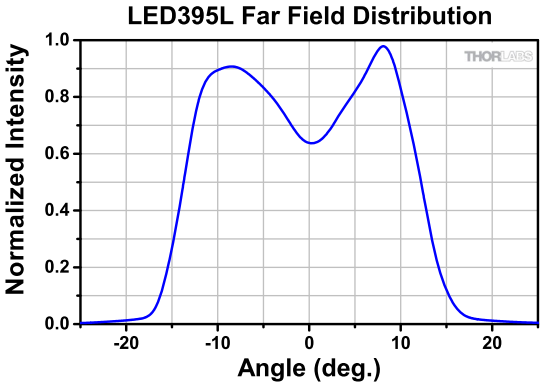
b. Unless otherwise specified, all specifications are for operation at 25 °C.

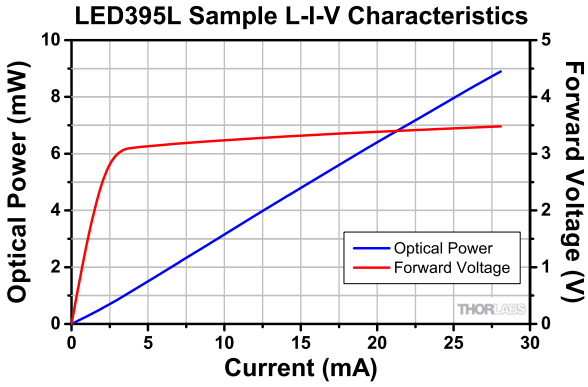
| Soldering Specifications | |
|---|---|
| | **Conditions** |
| **Dip Soldering** | Pre-Heat Backside of PCB at 90 °C Maximum for 60 Seconds or Less;<br>Solder Bath at 250 °C Maximum for 5 Seconds or Less |
| **Hand Soldering** | Soldering Iron Tip at 250 °C Maximum for 3 Seconds or Less |

| Cleaning Solvents | | | | | | |
|---|---|---|---|---|---|---|
| **Solvent** | **Ethyl Alcohol** | **Isopropyl Alcohol** | **Propanol** | **Acetone** | **Trichloroethylene** | **MKS** |
| **Approved** | Yes | Yes | Yes | Yes | No | No |

## Typical Performance Plots

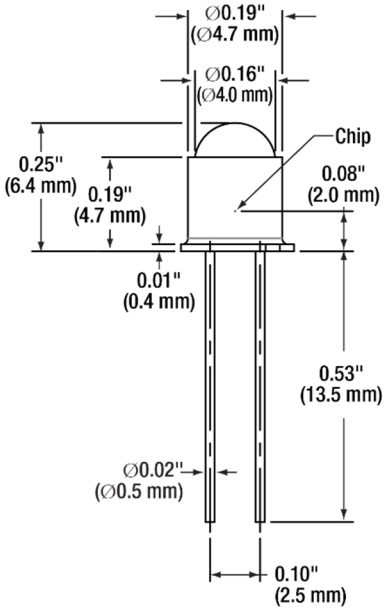


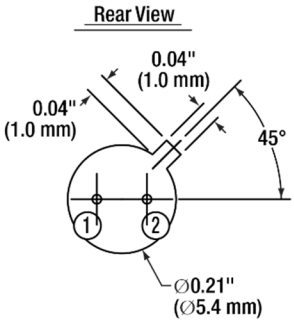



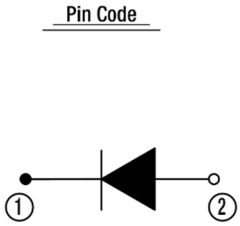




These measurements were taken at a case temperature of 25 °C. The output spectrum and radiation distribution were measured with an operating current of 20 mA.

## Drawing



# Precautions and Warranty Information

These products are sensitive to electrostatic discharge (ESD) and as a result are not covered under warranty once opened. In order to ensure the proper functioning of an LED care must be given to maintain the highest standards of compliance to the maximum electrical specifications when handling such devices. The LEDs are particularly sensitive to any voltage that exceeds the absolute maximum ratings of the product. Any applied voltage in excess of the maximum specification will cause damage and possible complete failure to the product. The user must use handling procedures that prevent any electrostatic discharges or other voltage surges when handling or using these devices.

During operation, the LED emits high intensity ultraviolet (UV) light, which is harmful to skin and eyes. UV light is hazardous to skin and may cause cancer. Avoid exposure to UV light when LED is operational. Precautions must be taken to avoid looking directly at the UV light without the use of UV light protective glasses. Do not look directly at the front of the LED or at the LED's lens when LED is operational.

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