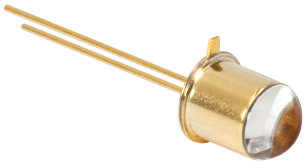
LED with Ball Lens, 600 nm

LED600L



Description

The LED600L is an AlGaInP LED mounted in a hermetically sealed 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	5 V
DC Forward Current	75 mA
Pulsed Forward Current[a]	100 mA
Operating Case Temperature	-40 to 100 °C
Storage Temperature	-40 to 100 °C

Specifications[b]			
	Min	**Typical**	**Max**
Operating Current (Continuous)	-	50 mA	75 mA
Forward Voltage at 50 mA	-	2.2 V	2.5 V
Optical Output Power at 50 mA	-	3 mW	-
Viewing Half Angle	-	15°	-
Peak Wavelength	590 nm	600 nm	610 nm
Bandwidth (FWHM)	-	12 nm	-

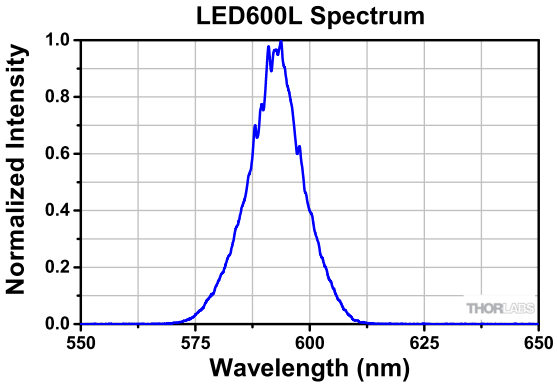
a. Pulsed Forward Current Condition: Duty Cycle = 1% and Pulse Width = 10 µs.

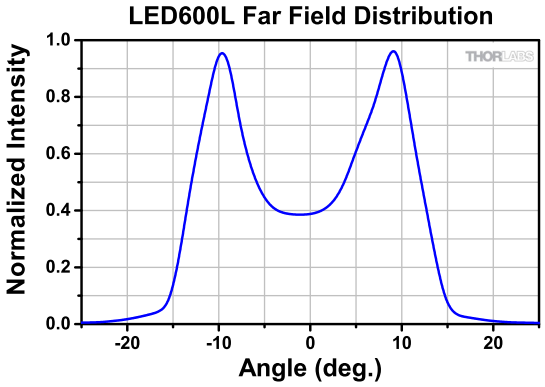
b. Unless otherwise specified, all specifications are for operation at 25 °C.

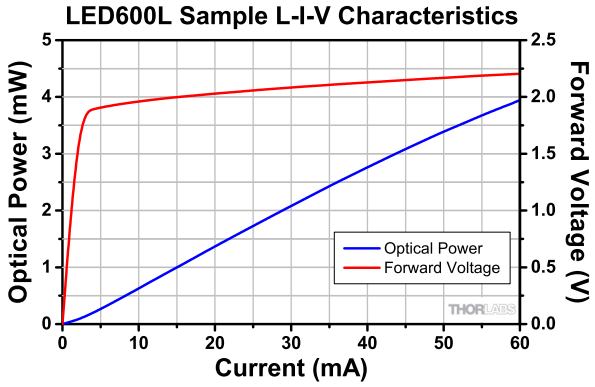
Soldering Specifications	
	Conditions
Dip Soldering	Pre-Heat Backside of PCB at 90 °C Maximum for 60 Seconds or Less; Solder Bath at 250 °C Maximum for 5 Seconds or Less
Hand Soldering	Soldering Iron Tip at 250 °C Maximum for 3 Seconds or Less

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

Typical Performance Plots

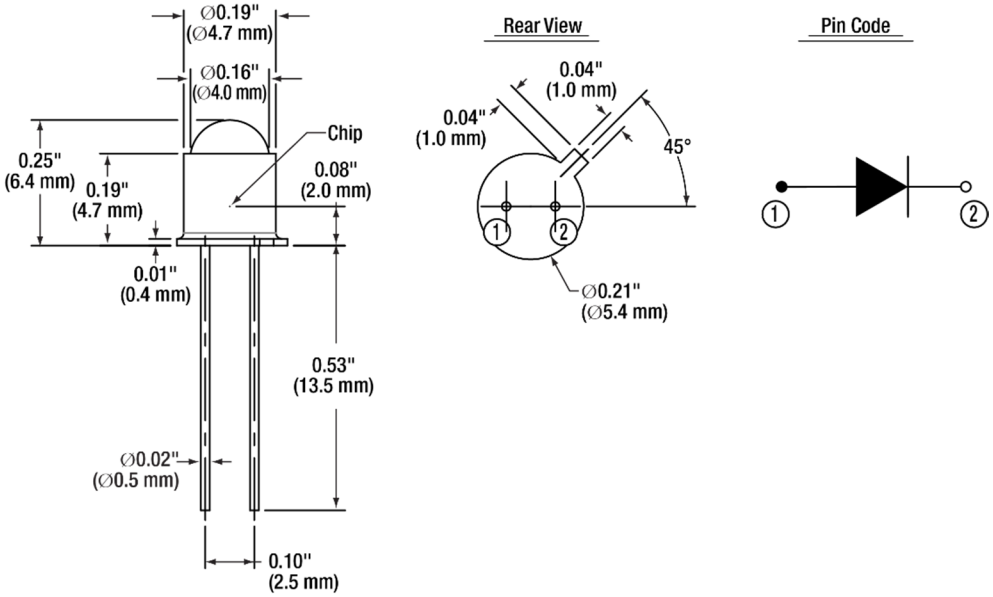






These measurements were taken at a case temperature of 25 °C. The output spectrum and radiation distribution were measured with an operating current of 50 mA.

Drawing



Precautions and Warranty Information

These products are ESD (electro static discharge) sensitive and as a result are not covered under warranty. 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 electro static discharges or other voltage surges when handling or using these devices.

Thorlabs, Inc. Life Support and Military Use Application Policy is stated below:

THORLABS' PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS OR IN ANY MILITARY APPLICATION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF THORLABS, INC. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.

2. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system or to affect its safety or effectiveness.

3. The Thorlabs products described in this document are not intended nor warranted for usage in Military Applications.