

# LED with Ball Lens, 1300 nm

**LED1300L** 



### Description

LED1300L is an InGaAsP LED mounted on 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	3 V					
DC Forward Current	100 mA					
Pulsed Forward Current <sup>a</sup>	1000 mA					
Operating Case Temperature	-20 to 90 °C					
Storage Temperature	-30 to 100 °C					



Specifications <sup>b</sup>							
	Min	Typical	Max				
<b>Operating Current (Continuous)</b>	-	50 mA	100 mA				
Forward Voltage at 50 mA	-	1.0 V	1.3 V				
Optical Output Power at 50mA	-	3.5 mW	-				
Viewing Half Angle	-	20°	-				
Peak Wavelength	1250 nm	1300 nm	1350 nm				
Bandwidth (FWHM)	-	85 nm	-				

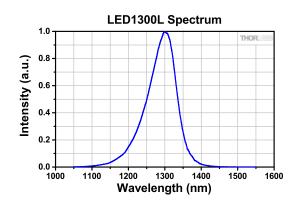
- a. Pulsed forward current condition: Duty cycle = 1% and pulse width = 10  $\mu$ s.
- b. Unless otherwise specified, all specifications are for operation at 25 °C.

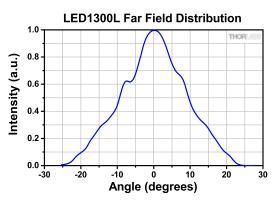
Soldering Specifications				
	Conditions			
Dip Soldering	Pre-heat backside of PCB at 90 °C maximum for 60 seconds or less;			
	Solder bath at 260 °C maximum for 5 seconds or less			
Hand Soldering	Soldering iron tip at 260 °C maximum for 3 seconds or less			

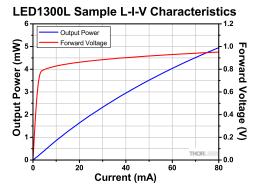
Cleaning Solvents								
Solvent	Ethyl Alcohol	Isopropyl Alcohol	Propanol	Acetone	Trichloroethylene	MKS		
Approved	Yes	Yes	Yes	No	No	No		



# Typical Performance Plots

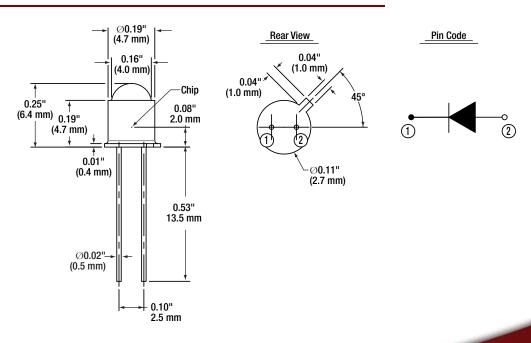






These measurements were taken at a case temperature of 25 °C. The output spectrum and Radiation distribution were measured with an operating current of 50 mA.

#### 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.

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- 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.
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