

## High-Power IR LED with Ball Lens, 1450 nm

LED1450L



### Description

LED1450L is an InGaAsP/InP LED mounted on a TO-18 package with a spherical glass lens. It is designed for high output power applications.

### Specifications

Absolute Max Ratings	
Specification	Max
Reverse Voltage	3 V
DC Forward Current	100 mA
Operating Case Temperature	-40 to 100 °C
Storage Temperature	-40 to 100 °C



Specifications			
	Min	Typical	Max
Operating Current (Continuous)	-	50 mA	100 mA
Forward Voltage at 50 mA	-	1.0 V	1.4 V
Optical Output Power at 50mA	-	5 mW	-
Beam Divergence (FWHM)	-	14°	-
Peak Wavelength	1400nm	1450 nm	1500 nm
Bandwidth (FWHM)	-	105 nm	-
Rise Time	-	10 ns	-
Fall time	-	10 ns	-

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

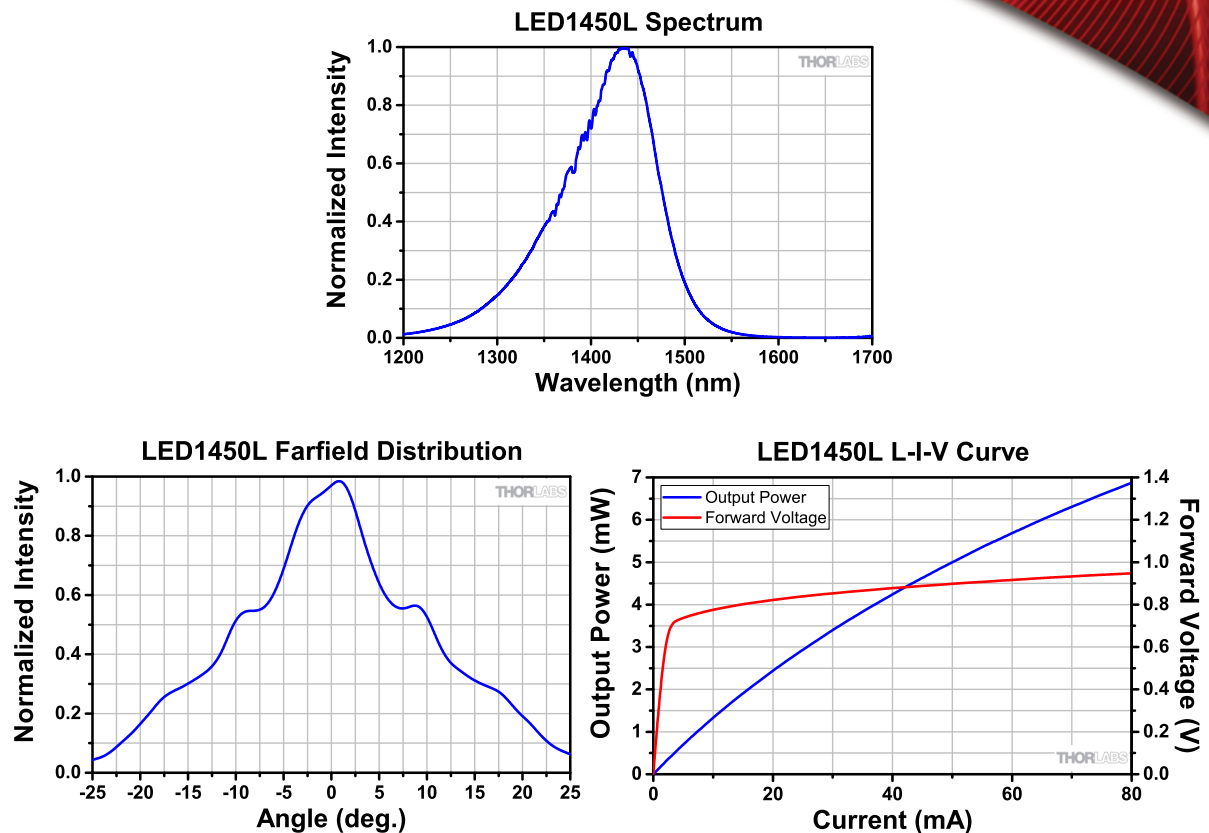
Soldering Specifications	
	Conditions
Dip Soldering	Pre-heat backside of PCB at 90 °C maximum for 60 seconds or less; Solder bath at 265 °C maximum for 5 seconds or less
Hand Soldering	Soldering iron tip at 265 °C maximum for 3 seconds or less

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

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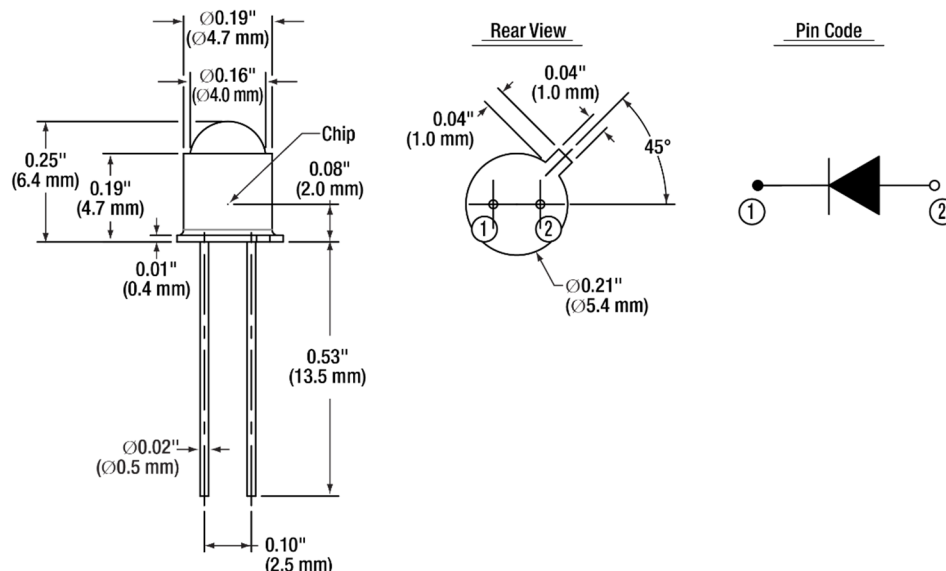
QTN014658-S01, Rev D

## Typical Performance Plots



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

## Drawing



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## ***Precautions and Warranty Information***

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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.

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.