

LED250J



Description

The Optan® UVC LED250J, manufactured by Crystal IS, comes in a hermetically-sealed TO-39 package with an integrated ball lens. With an output power exceeding 1 mW and a viewing half angle of 7.5°, this LED is well suited for spectroscopic applications in analytical and life sciences instrumentation. The superior efficiency and reliability of these LEDs are achieved by epitaxial growth of crystal layers on aluminum nitride (AlN) substrates.

Specifications

Absolute Max Ratings	
Specification	Max
Reverse Voltage	1.0 V
DC Forward Current	110 mA
Operating Case Temperature	-5 to 55 °C
Storage Temperature	-40 to 100 °C



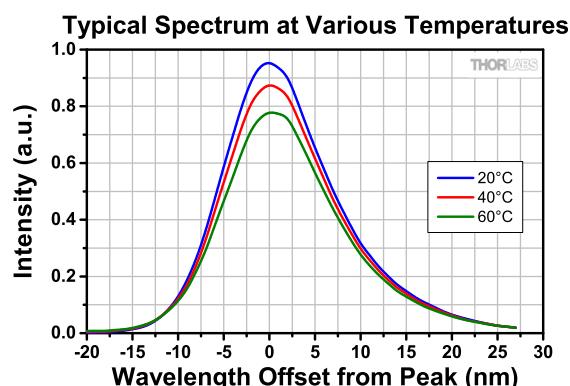
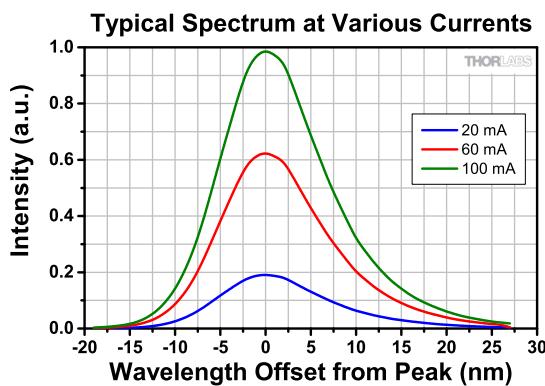
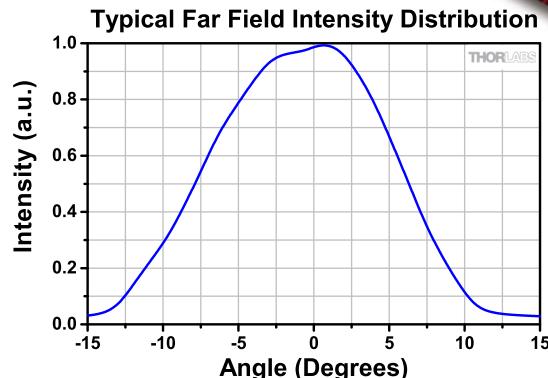
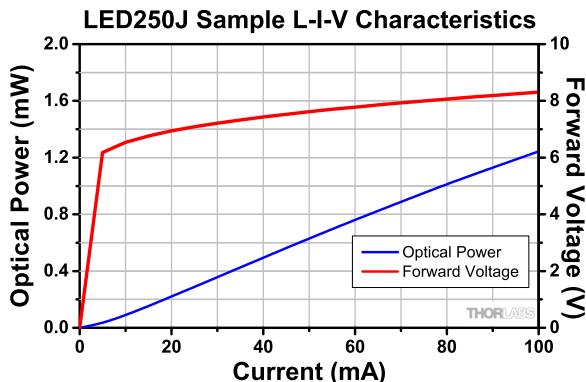
Specifications			
	Min	Typical	Max
Power Dissipation	-	-	1 W
Operating Current (Continuous)	-	-	100 mA
Forward Voltage at 100 mA	-	8 V	10 V
Thermal Resistance, Junction to Case	-	37 °C/W	-
Optical Output Power at 100 mA	1 mW	-	-
Viewing Half Angle	-	7.5°	-
Peak Wavelength	245 nm	250 nm	255 nm
Bandwidth (FWHM)	-	12 nm	-
Lifetime at 25 °C, 20 mA	-	8000 hrs	-
Lifetime at 25 °C, 100 mA	1000 hrs	3000 hrs	-

Note: 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 300° C Maximum for 3 Seconds or Less

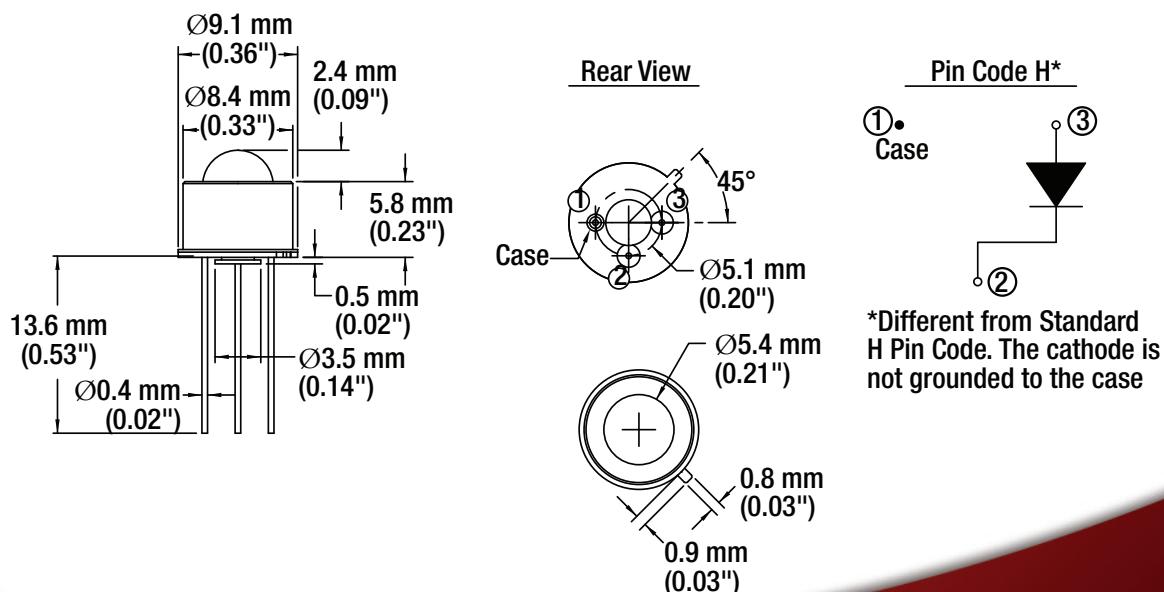
Cleaning Solvents						
Solvent	Ethyl Alcohol	Isopropyl Alcohol	Propyl Alcohol	Acetone	Trichloroethylene	MKS
Approved	Yes	Yes	Yes	No	No	No

Typical Performance Plots



Note: The first three graphs show measurements that were made at a case temperature of 25° C. The last graph shows measurements of an LED driven with a pulsed operating current of 100 mA. The far field intensity distribution was taken 25 mm from the LED.

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.

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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