

UV LED with Aspheric Glass Lens, 285 nm

LED285J



Description

The LED285J emits light with a spectral output centered at 285 nm. This LED is encased in a TO-39 package with an aspheric glass lens.

Specifications

Specification	Value
Color	UV
Nominal Wavelength	285 nm
LED Type	TO-39, Aspheric Glass Lens
Maximum Current (CW) ^a	30 mA
Test Current (CW) ^a	20 mA
Full Viewing Angle ^{a,b}	12°
Typical Bandwidth (FWHM) ^{a,b}	11 nm
Operating Temperature (Non-Condensing)	-30 to 55 °C
Storage Temperature	-30 to 100 °C

a. Measured at 25 °C

b. When Driven with the Test Current

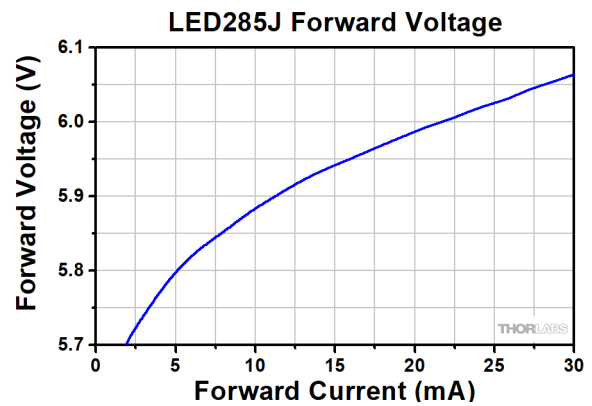
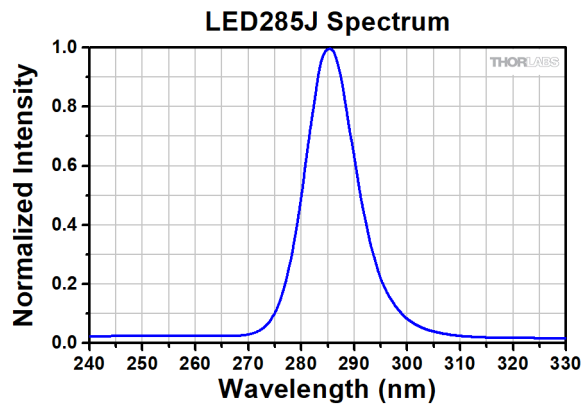
	Symbol	Min	Typical	Max
Peak Wavelength ^{a,b}	λ_p	280 nm	-	290 nm
LED Power Output ^{a,b}	P_{out}	0.4 mW	1.3 mW	-
Forward Voltage ^{a,b}	V_F	-	6.0 V	7.5 V

a. Measured at 25 °C

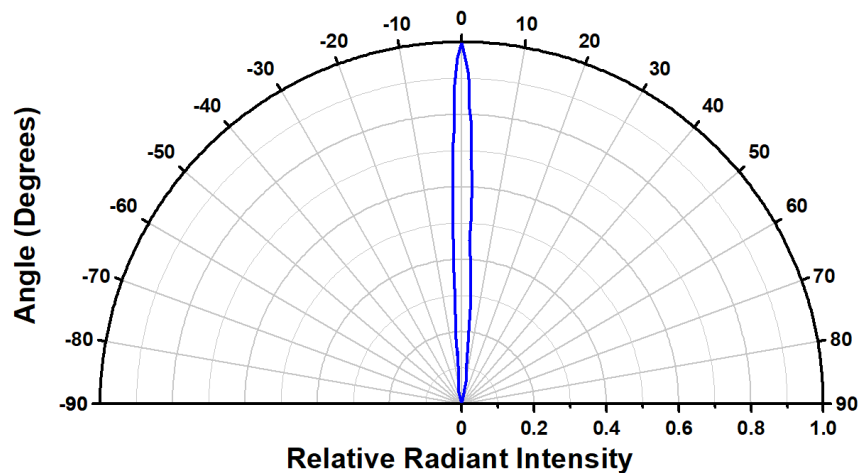
b. When Driven with the Test Current

Soldering Specifications		
Soldering Temperature	T_{SOL}	250 °C (within 5 sec, 3 mm from LED)

Typical Performance Plots

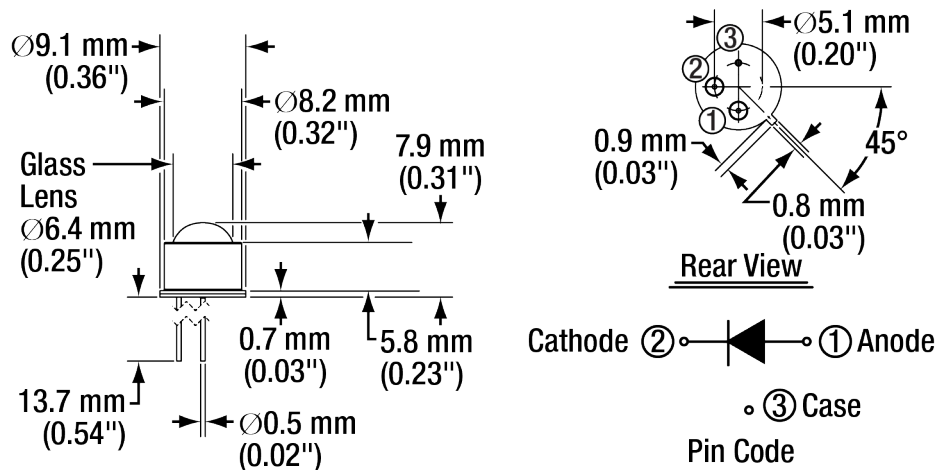


LED285J Spatial Radiation Distribution



Note: All the plots above were measured at 25°C. The forward current for the first and third plots is $I_F = 20$ mA.

Drawings



Precautions and Warranty Information

These products are ESD (electro static discharge) sensitive and as a result warranty is only valid for one year for unopened products in accordance with and subject to the terms and conditions set forth in Thorlabs' General Terms and Conditions of Sale which can be found at https://www.thorlabs.com/Images/PDF/LG-PO-001_Thorlabs_terms_and_%20agreements.pdf. Warranty is void after product packaging is 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 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. Safety of the assembled end product is the sole responsibility of the assembler of the system. Keep out of reach of children.

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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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