

Unmounted Single-Color LED, 2800 nm

LED2800W



Description

The LED2800W emits light with a spectral output centered around 2800 nm. This LED is encased in a TO-18 package with a glass cover.

Specifications

Specification	Value
Color	MIR
Nominal Wavelength	2800 nm
LED Type	TO-18 with Round Glass Cover
Maximum Current (qCW Mode) ^{a, b, c}	200 mA
Maximum Current (Pulsed Mode) ^{a, d}	1000 mA
Test Forward Current	150 mA
Full Viewing Angle ^a	30°
Operating Temperature (Non-Condensing)	0 to 50 °C
Storage Temperature	0 to 50 °C
Typical Lifetime ^{a, b}	>80 000 h

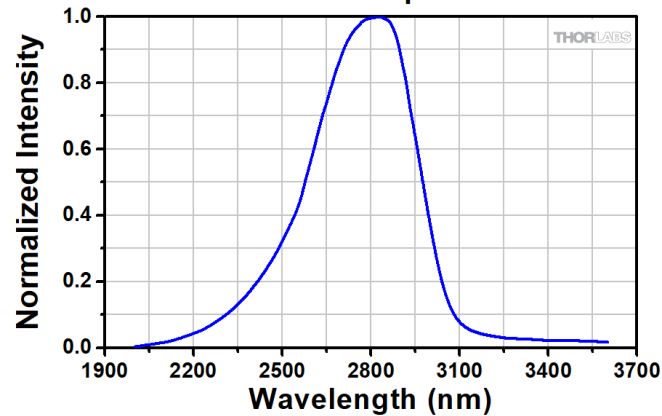
	Symbol	Min	Typical	Max
Peak Wavelength ^{a, b, e}	λ_p	2830 nm	-	2900 nm
Average Optical Power (qCW Mode) ^{a, b, f}	P_{out}	100 μ W	300 μ W	-
Peak Optical Power (Pulsed Mode) ^{a, d, g}	P_{out}	700 μ W	2000 μ W	-
Forward Voltage ^{a, b, f}	V_F	0.2 V	-	1 V
Bandwidth (FWHM) ^{a, b, e}		300 nm		500 nm

- a. Measured at 25 °C
- b. Repetition Rate: 0.5 kHz, Pulse Duration: 1 ms, and Duty Cycle: 50%
- c. For Long-Time Operation
- d. Repetition Rate: 0.5 kHz, Pulse Duration: 20 μ s, and Duty Cycle: 1%
- e. Measured at Test Current
- f. Measured at 200 mA
- g. Measured at 1 A

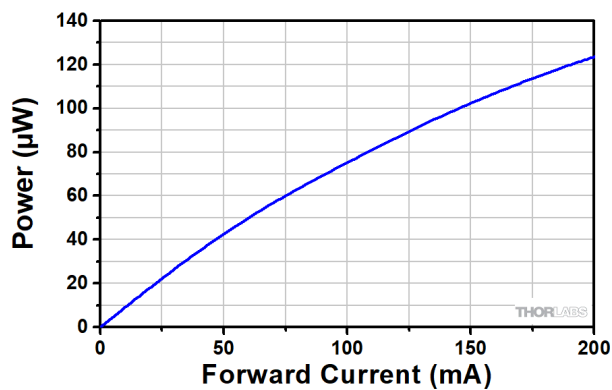
Soldering Specifications		
Soldering Temperature	T_{SOL}	180 °C (Within 3 Sec), 3 mm From Case

Performance Plots

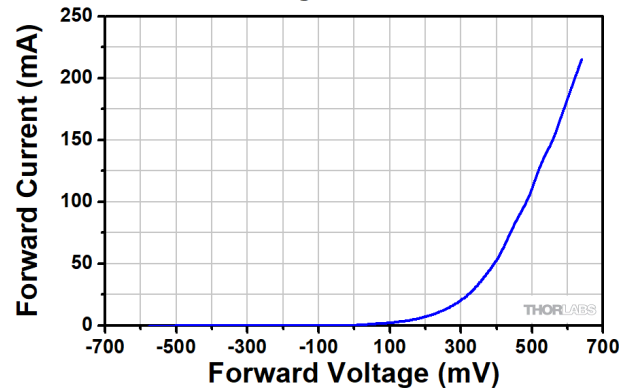
LED2800W Spectrum



Forward Current vs. Power



Forward Voltage vs. Forward Current



The data in the graphs above are measured at quasi-continuous wave (qCW) mode, with a repetition rate of 0.5 kHz. The pulse duration is 1 ms, and the duty cycle is 50%.

Typical Spatial Radiation Distribution

