

# Fiber-Pigtailed LED

EP470S04

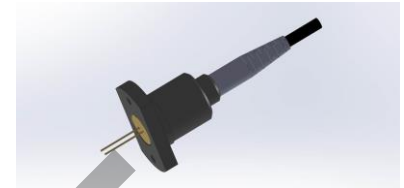


S/N: E181112-15

Center Wavelength: 477.4 nm  
Fiber Type: FP400ERT  
Test Date: 11/19/2018



Diode Package: TO 9 mm  
Connector: SMA  
Tested By: Yimin



QA: Pass

### Summary of Test Data ( CW, T<sub>case</sub>=25°C)

Parameter	Symbol	Value	Unit
Forward Current	I <sub>op</sub>	500	mA
Fiber Output Power@I <sub>op</sub>	P <sub>out</sub>	23.4	mW
Operating Voltage@I <sub>op</sub>	V <sub>op</sub>	3.1	V
Slope Efficiency	ΔP/ΔI	0.042	W/A

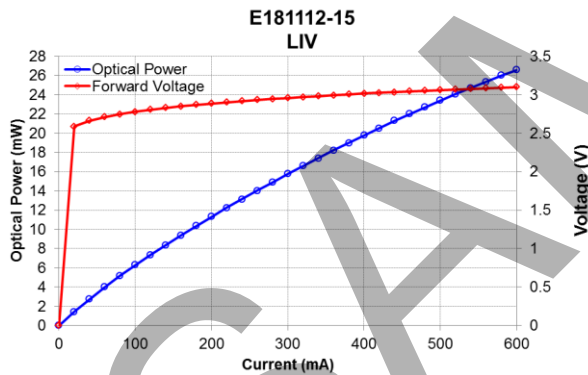
### Absolute Maximum Ratings

Parameter	Ratings	Unit
Diode Current*	1000	mA
Reverse Voltage*	3	V
Storage Temperature	-10~+65	°C
Case Temperature	0~+50	°C

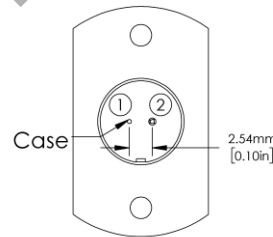
\* CW, T<sub>case</sub>=25°C



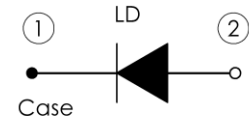
CAUTION- use of adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. There are no user serviceable parts in this product. When proper power is applied to this product, light radiation will be emitted from the optical fiber.



Rear View



Pin Code G

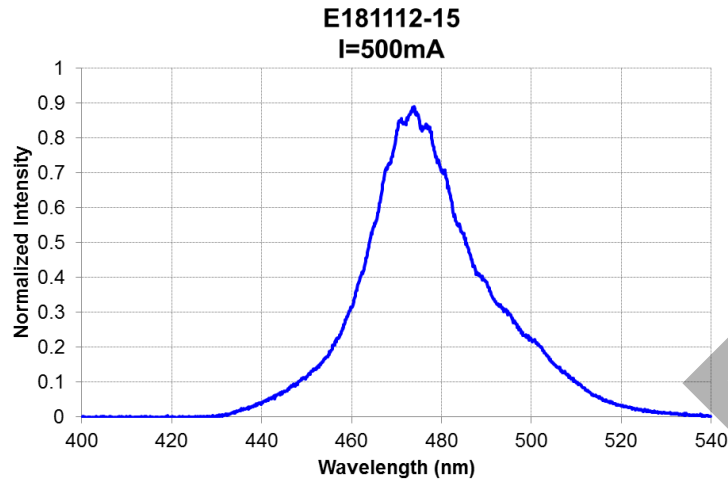


### Important Notes:

1. The maximum ratings mean the limitation over which the diode should not be operated even instant time.
2. Do not clean the fiber connector when the diode is in operation. The diode should be off when plugging or un-plugging the connector.
3. To protect the diode from damage due to static electricity (ESD), please follow proper ESD handling precautions.
4. Do not pull or fold the fiber. The fiber is very fragile and easily broken. Avoid handling the fiber by the rubber “boots” of the black housing and connector ends of the pigtail.



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$T_{\text{case}}=25^{\circ}\text{C}$ ,  $I_{\text{op}}=500\text{mA}$   
Spectrum measured by CCS100.



## Pigtailed LED Warranty

When operated within their specifications, LEDs have extremely long lifetimes. However most failures occur from mishandling or operating the lasers beyond their maximum ratings. Since Thorlabs does not receive any warranty credit from our LED manufacturers we cannot guarantee the LEDs after their sealed package has been open. Thorlabs will be happy to extend a full refund or credit for any lasers returned in their original sealed package.

## Operating and Safety Precautions

- **Power Meter.** When setting up and calibrating a pigtailed LED with its driver, use a NIST-traceable power meter to precisely measure the optical output. Avoid looking directly into the outputs from UV or IR LEDs. The fibers used in pigtailed LEDs have large numerical aperture. Please avoid beam clipping during power measurement.
- **Heat Sink.** Laser lifetime is inversely proportional to operating temperature. Always mount the laser in a suitable heat sink to remove excess heat from the laser package.
- **Voltage and Current Overdrive.** Be careful not to exceed the maximum voltage and currents even momentarily. Also, reverse voltages as little as 3 V can damage a LED
- **ESD Sensitive Device.** Avoid exposing the LED or its mounting apparatus to ESDs at all times.
- **Power Supply Coupled Transients** High current devices such as soldering irons, vacuum pumps, fluorescent lamps, etc., can cause large momentary transients; use surge-protected outlets. **NEVER HOT plug/unplug the LED.**
- **Keep the fiber connector clean.** Use proper fiber inspection and cleaning tools.

If you have any questions regarding laser diodes, please call your local Thorlabs Technical Support Center and an engineer will be happy to assist you.

## Life Support and Military Use Application Policy

THORLABS' PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS OR IN ANY MILITARY APPLICATION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF THORLABS, INC.