Pigtailed Laser Diode, PMF

LP642-PF20

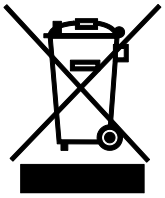
Description

Thorlabs' PM Pigtailed Laser Diodes are standard TO-packaged diodes that have been pigtailed to a 1 m long polarization maintaining fiber with a 2.0 mm narrow key FC/PC connector. The slow axis of the fiber has been aligned to the key of the connector. We test each pigtail before shipment to customers and a unit-specific spec sheet is included with each pigtail; please use the included spec sheet for optimal operating parameters.

Specifications

Absolute Maximum Ratings[a]	
LD Reverse Voltage (Max)	2 V
PD Reverse Voltage (Max)	20 V
Operating Temperature	0 to 50 °C
Storage Temperature	-10 to 65 °C

a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.



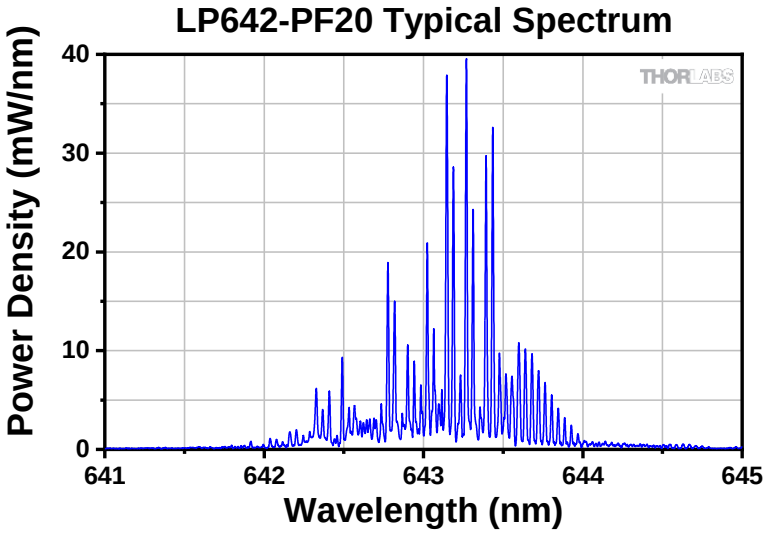
General Specifications	
Diode Size	Ø5.6 mm
Pin Code	A
Fiber	PM630-HP
Connector	FC/PC, 2.0 mm Narrow Key Slow Axis Aligned to Key

Optical and Electrical Specifications[a]			
	Min	**Typical**	**Max**
Wavelength	635 nm	642 nm	652 nm
Threshold Current[a]	-	55 mA	80 mA
Optical Output Power (P_O)	-	20 mW	25 mW
Slope Efficiency[a]	0.2 mW/mA	0.4 mW/mA	-
Operating Current @ P_O = 20 mW[a]	-	110 mA	150 mA
Operating Voltage @ P_O = 20 mW[a]	-	2.5 V	3.0 V
Monitor Current @ P_O = 20 mW[a]	0.2 mA	0.4 mA	0.8 mA
Polarization Extinction Ratio	15 dB	-	-

a. Temperature = 25 °C

Performance Plots

The plot below gives a typical spectrum for the LP642-PF20 PM Fiber-Pigtailed Laser Diode as measured by Thorlabs' OSA201 Fourier Transform Optical Spectrum Analyzer, which offers a maximum spectral resolution of 7.5 GHz (0.25 cm^{-1}). The spectrum was taken with the current at 90 mA and with an ambient temperature of 25 °C. The settings of the OSA201 were Wavelength nm (in vacuum), Linear, High Sensitivity, High Resolution.



Drawings