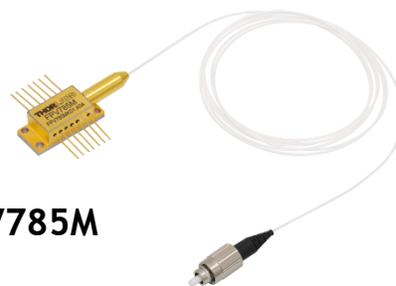


## 785 nm Grating-Stabilized Laser Diode, 600 mW, MM Fiber



**FPV785M**

### Description

The FPV785M 785 nm Grating-Stabilized Laser Diode is a volume-holographic-grating (VHG) laser ideal for Raman spectroscopy applications. This laser diode is housed in a 14-Pin, hermetically sealed butterfly package that allows the laser to be temperature controlled. This laser diode produces a wavelength-stabilized spectrum with a typical output power of 600 mW, and the output is coupled to 1.0 m of FC/PC-terminated multimode fiber.

### Specifications



Absolute Maximum Ratings <sup>a</sup>	
LD Reverse Voltage (Max)	2 V
Absolute Max Power	650 mW
Operating Case Temperature	15 °C to 35 °C
Storage Temperature	-10 °C to 65 °C

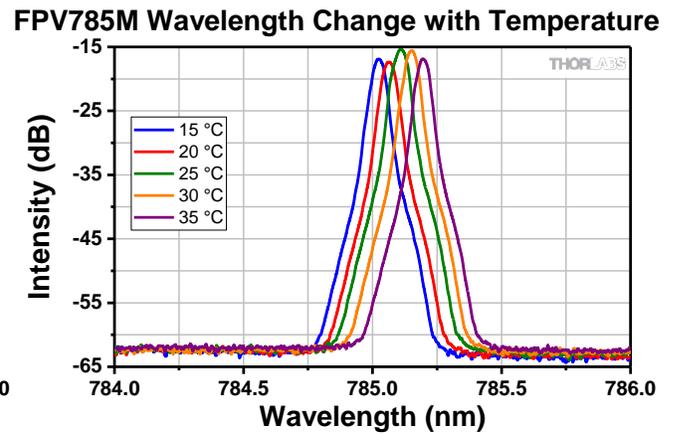
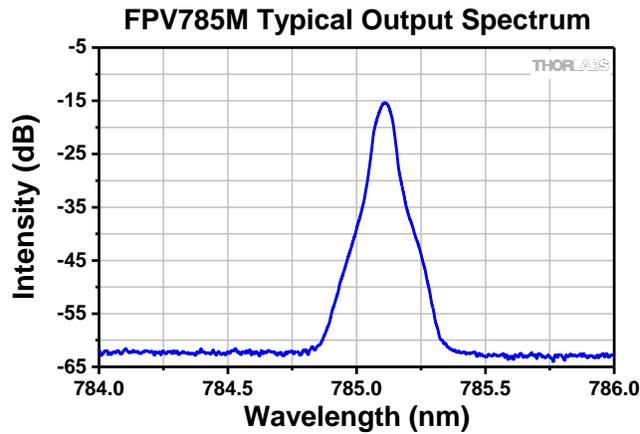
- a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

Characteristics				
	Symbol	Min	Typical	Max
Peak Wavelength	$\lambda_p$	784.5 nm	785 nm	785.5 nm
Threshold Current <sup>a</sup>	$I_{TH}$	-	350 mA	-
Output Power	$P_o$	550 mW	600 mW	-
Slope Efficiency <sup>a</sup>	$\Delta P / \Delta I$	-	0.95 W/A	-
Operating Current @ $P_o = 600 \text{ mW}^a$	$I_{op}$	-	1100 mA	1500 mA
Operating Voltage @ $P_o = 600 \text{ mW}^a$	-	-	1.9 V	2.2 V
Monitor Photodiode Current @ $P_o = 600 \text{ mW}^a$	$I_{photo}$	-	0.5 mA	-
Spectral Bandwidth (FWHM)	$\Delta\nu$	-	0.06 nm	0.12 nm
Wavelength Shift with Temperature	$\Delta\lambda / \Delta T$	-	0.01 nm/°C	-
TEC Current	$I_{TEC}$	-	-	2.2 A
TEC Voltage	$V_{TEC}$	-	-	8.75 V
Thermistor Resistance	$R_{TH}$	-	10 k $\Omega$	-

- a.  $T_{chip} = 25 \text{ }^\circ\text{C}$

Fiber Information	
Fiber	$\text{\O}105 \text{ }\mu\text{m}$ Core, Step Index Multimode Fiber
Fiber NA	0.22
Fiber Length	1.0 m $\pm$ 0.1 m
Tubing	$\text{\O}900 \text{ }\mu\text{m}$ Loose Tube
Connector	FC/PC

## Typical Performance Plots



## Drawing

