



T78E-XYZ-WM

780nm Single Mode Fiber Coupled Laser Diode, 9/125um SM Fiber, Multimode Beam



Description

The Lasermate T78E-XYZ-WM is a 780nm wavelength, fiber coupled laser diode offering up to 20mW output power through a 9/125um single mode fiber. The laser is designed for use in light source applications.

Features

- 780nm laser diode
- Operation at -10°C to +50 °C or -10°C to +70 °C
- Built-in monitor photodiode
- Fiber optical output power >1mW and >20mW for 9/125um SM fiber

Packaging

- Fiber pigtailed with optional FC/SC/ST connector

Applications

- Light source

Product Overview

The following table lists the available part numbers, as well as the package, connector, output power, and optional mount of each of the part numbers.

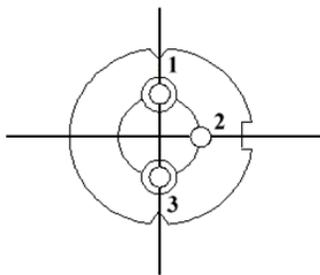
Part Number	Package	Connector	Output Power	Pinout Configuration	Mount
T78E-PSC1-20	Pigtailed with 9/125um SM fiber	SC/PC	1mW	Common anode	No flange
T78E-PST1-20	Pigtailed with 9/125um SM fiber	ST/PC	1mW	Common anode	No flange
T78E-PFC1-20	Pigtailed with 9/125um SM fiber	FC/PC	1mW	Common anode	No flange
T78E-PSC1-21	Pigtailed with 9/125um SM fiber	SC/PC	1mW	Common anode	Horizontal mount
T78E-PST1-21	Pigtailed with 9/125um SM fiber	ST/PC	1mW	Common anode	Horizontal mount
T78E-PFC1-21	Pigtailed with 9/125um SM fiber	FC/PC	1mW	Common anode	Horizontal mount
T78E-PSC20-20	Pigtailed with 9/125um SM fiber	SC/PC	20mW	Common anode	No flange
T78E-PST20-20	Pigtailed with 9/125um SM fiber	ST/PC	20mW	Common anode	No flange
T78E-PFC20-20	Pigtailed with 9/125um SM fiber	FC/PC	20mW	Common anode	No flange
T78E-PSC20-21	Pigtailed with 9/125um SM fiber	SC/PC	20mW	Common anode	Horizontal mount
T78E-PST20-21	Pigtailed with 9/125um SM fiber	ST/PC	20mW	Common anode	Horizontal mount
T78E-PFC20-21	Pigtailed with 9/125um SM fiber	FC/PC	20mW	Common anode	Horizontal mount

Specifications

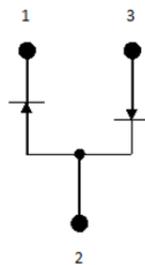
Absolute Maximum Ratings (T _c = 25°C)				
Parameter		Symbol	Rating	Unit
Operating Temperature	For 1mW	T _{op}	-10 to +50	°C
	For 20mW		-10 to +70	
Storage Temperature		T _{stg}	-40 to +85	°C
LD Reverse Voltage		V _{RLD}	2	V
PD Reverse Voltage		V _{RPD}	30	V

Electrical-Optical Characteristics (T _c = 25°C)							
Parameter		Symbol	Min.	Typ.	Max	Unit	Conditions
Lasing Wavelength		λ	770	785	800	nm	
Threshold current	For 1mW	I _{th}	-	25	-	mA	CW
	For 20mW		-	35	-		
Operating current	For 1mW	I _{op}	-	35	-	mA	
	For 20mW		-	90	-		
Operating voltage	For 1mW	V _{op}	-	2.2	2.5	Volt	
	For 20mW		-	2.0	2.2		
Optical output power	For 1mW	P _o	1			mW	9/125 μm SM fiber
	For 20mW		20				
Monitor current	For 1mW	I _m	50	250	600	μA	
	For 20mW		100	850	1300		

Pin Configuration



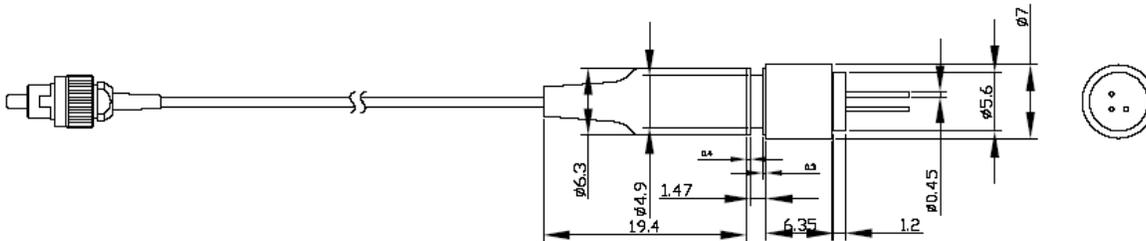
Bottom View



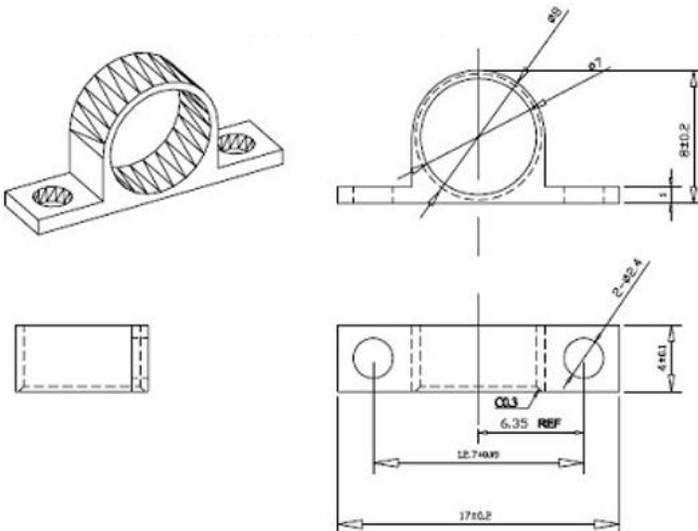
Pin	Function
1	Laser Diode Cathode
2	Laser Diode Anode, Photodiode Cathode
3	Photodiode Anode

Mechanical Outline (unit: mm)

Laser Diode



Horizontal Mount



Additional Notes

- The laser diodes are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Specifications are subject to change without notice.