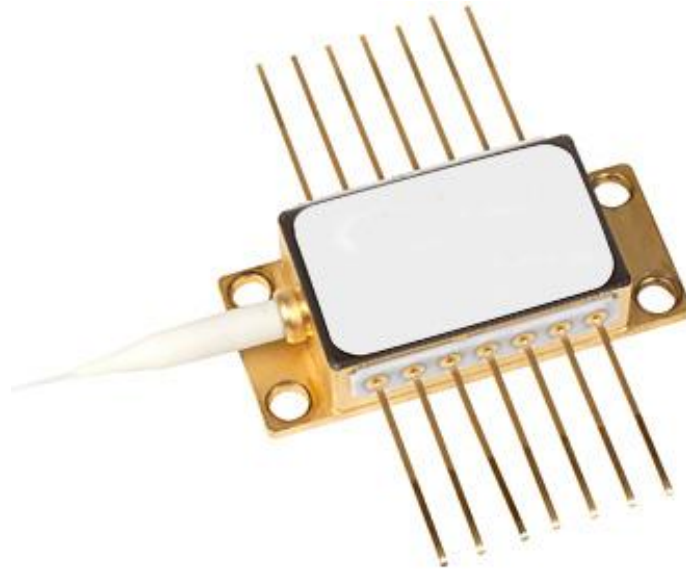


## 974nm 800mW SM Pumping Laser



- **Product Description**

Optional peak wavelength, optional output power, and optional FC/APC connector.

- **Product features**

Single-mode fiber output; high power stability; narrow linewidth characteristic; low noise design; industrial-grade package

- **Part Number**

MP-FP-974-800-14BF-SM



## ● Application area

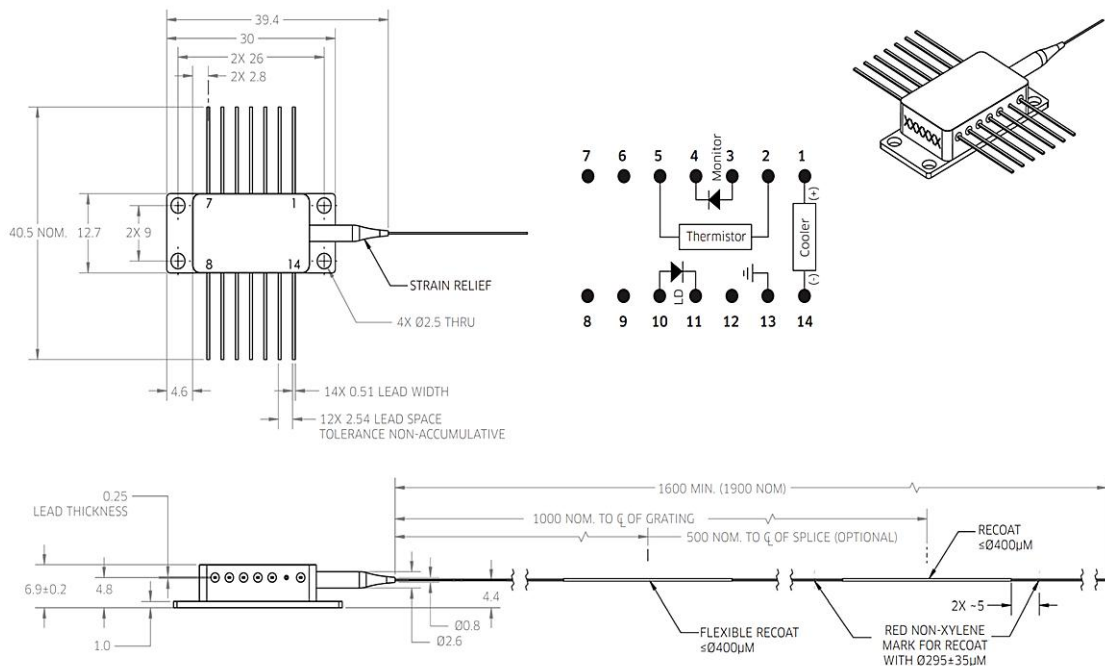
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Fiber Optic Sensing | Quantum Technology

## ● Core parameters

Center Wavelength	Output Power
974nm	800mW

## ● Dimension Drawing





## ● General Parameters

### Model Parameters

Parameter	Symbol	Min	Typ	Max	Unit
Center Wavelength	$\lambda$	974	976	980	nm
Spectral Width	$\Delta\lambda$	0.6	0.8	2.0	nm
Threshold Current	$I_{th}$	-	90	110	mA
Operating Current	$I_{op}$	-	120	150	mA
Fiber Output Power	Pf	400	600	1000	mW
Wavelength Tuning vs. Temperature	$\Delta\lambda/T$	-	-	0.01	nm/°C
Tracking Ratio ( $0.1P_{op} < P_f < P_{op}$ ) <sup>1</sup>	TR	0.52	-	1.48	-
Tracking Error <sup>2</sup>	TE	-48	-	48	-
PD Monitor Responsivity	IBF	0.5	-	5	$\mu$ A/mW
Thermal Resistance (Tset = 25° C) <sup>3</sup>	Rth	-	20K	-	ohm
PD Dark Current (VRD = 5 V)	$I_d$	-	-	0.1	$\mu$ A
Extinction Ratio (PM Version)	PER	17	20	-	dB
Fiber Type	HI1060				
Forward Voltage	Vf	-	1.8	2.6	V
Thermistor Resistance	RT	9.5	10	10.5	k $\Omega$
Thermistor Temperature	-	-	-4.4	-	%/°C

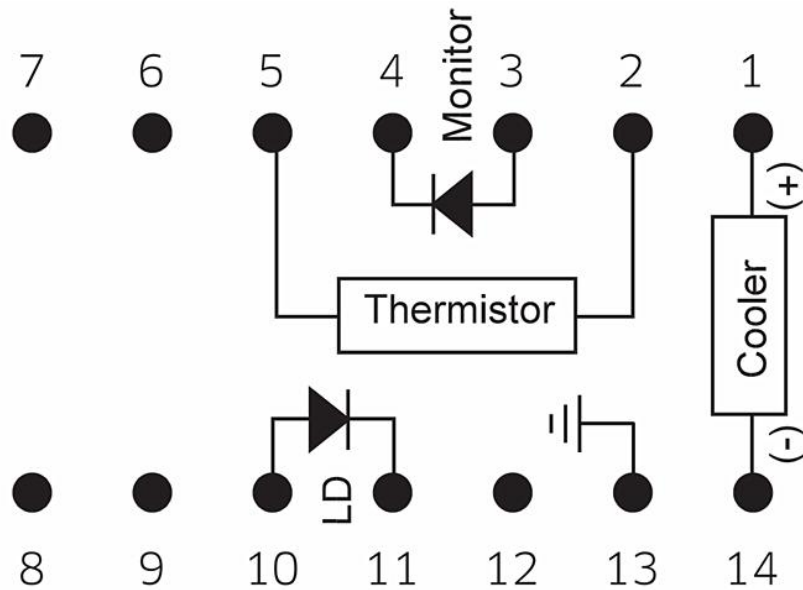


Parameter	Symbol	Min	Typ	Max	Unit
Efficiency					
Output Connector	-	-	None or FC/APC	-	-

## HI1060 Fiber Characteristics & Tolerances

Parameter	Value
Cut-off Wavelength	920 nm
Maximum Attenuation	2.1 dB/km
Cladding Diameter	125 $\mu\text{m}$
Coating Diameter	250 $\mu\text{m}$
Core-Cladding Concentricity Error	$\leq 0.5 \mu\text{m}$
Mode Field Diameter	5.9 $\mu\text{m}$

## Pin Definitions



Pin	Description	Pin	Description
1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	Laser Anode (+)
4	PD Monitor Cathode (+)	11	Laser Cathode (-)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	Thermoelectric Cooler (-)



## Ordering Information

Peak Wavelength
973.0 to 975.0 nm
975.0 to 977.0 nm
973.0 to 981.5 nm

Maximum Operating Power
600 mW
620 mW
640 mW
660 mW
680 mW
700 mW
720 mW
740 mW
760 mW
780 mW
800 mW
820 mW
840 mW
860 mW
880 mW
900 mW
950 mW