



SPM660-800-105M-PDT-14P

- Red Fiber-pigtailed Laser Diode Module
- 660±10 nm, 800 mW
- 105 µm Multi-mode Fiber
- Build-in PD and TEC
- 14-Pin Package



Description

SPM660-800-105M-PDT-14P is a red fiber-pigtailed laser diode module, typically emitting at 660 nm, with an output power of 800 mW. It comes in a 14-pin package with 105 µm multi-mode fiber and FC/PC connector, built-in TEC (thermo-electric cooler), thermistor and photodiode. Different fibers and connectors are optionally available.

Maximum Ratings

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	U_R		2.0	V
Operating Temperature	T_{OPR}	0	+ 30	°C
Storage Temperature	T_{STG}	- 20	+ 80	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C

Electro-Optical Characteristics ($T_{CASE} = 25^\circ\text{C}$)

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	650	660	670	nm
Temperature Coefficient	α		0.2		nm/K
Output Power	P_O		800		mW
Spectral Width (FWHM)	$\Delta\lambda$		3.0		nm
Operating Voltage	V_F		2.2	2.5	V
Threshold Current	I_{th}		0.4	0.9	A
Operating Current	I_F		1.4	1.6	A
TEC Current	I_{TEC}			2	A
TEC Voltage	V_{TEC}			8	V
Thermistor	R		10K		Ω
Fiber spec.	Type		Multi-mode		
	Core		105*		µm
	Numerical Aperture		0.22		
	Connector *		FC/PC*		
	Length		80		cm



* SC or SMA905 con. and 200, and 400 µm core diameter available on request



Electrical Connection

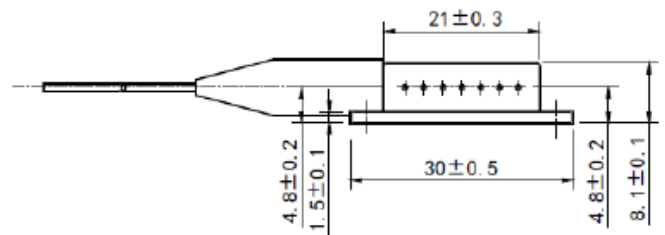
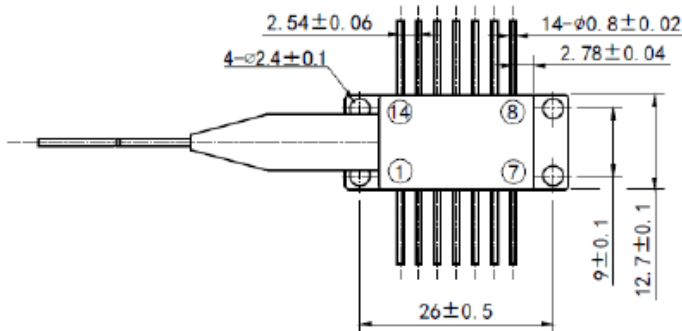
Pin Configuration*

PIN #	Function	PIN #	Function
1	TEC +	14	TEC -
2	Thermistor	13	Case
3	PD +	12	n.c.
4	PD -	11	LD -
5	Thermistor	10	LD +
6	n.c.	9	n.c.
7	n.c.	8	n.c.



* subject to change

Outline Dimension



All dimensions in mm

Precautions

Safety

Laser light emitted from any laser diode may be harmful to the human eye. **Avoid looking directly into the laser diode's aperture.** The use of optical lenses will increase eye hazard



ESD Caution

Always do handle laser diodes with care to **prevent electrostatic discharge.** We advise to **wearing wrist straps, and grounding all applicable work surfaces,** when handling laser diodes

Operating Considerations

Usage of current regulated drive circuits is mandatory We advise to operate this laser diode with a current source and heat sink, and to never exceed the maximum specifications as outlined in this datasheet.



© All Rights Reserved
The above specifications are for reference purpose only and subjected to change without prior notice