ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
TEL. +43 1 586 52 43 -0, FAX. -44 OFFICE@ROITHNER-LASER.COM

SPM530-1W-105M-PDT-9P

- **Green Fiber-pigtailed Laser Diode Module**
- **530±10 nm, 1.0 W**
- **105 µm Multimode Fiber**
- **Build-in PD and TEC**
- **9-Pin Package**

RoHS COMPLIANT Pb Pb-Free

Description

SPM530-1W-105M-PDT-9P is a green fiber-pigtailed laser diode module, typically emitting at 530 nm, with an output power of **1.0 W**. It comes in a 9-pin package with 105 µm multimode 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 Min.	Values Max.	Unit
Reverse Current	I_R		80	mA
Operating Temperature	T_{OPR}	0	+ 60	°C
Storage Temperature	T_{STG}	- 40	+ 85	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter		Symbol	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength		λ_P	520	530	542	nm
Output Power		P_O		1.0		W
Spectral Width (FWHM)		$\Delta\lambda$		3.0		nm
Operating Voltage		V_F		5.0	6.0	V
Threshold Current		I_{th}		0.2	0.6	A
Operating Current		I_F		2.1	2.3	A
TEC Current		I_{TEC}			6	A
TEC Voltage		V_{TEC}			9.8	V
Thermistor		R_{TH}		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 50, 200, or 400 µm core diameter available on request

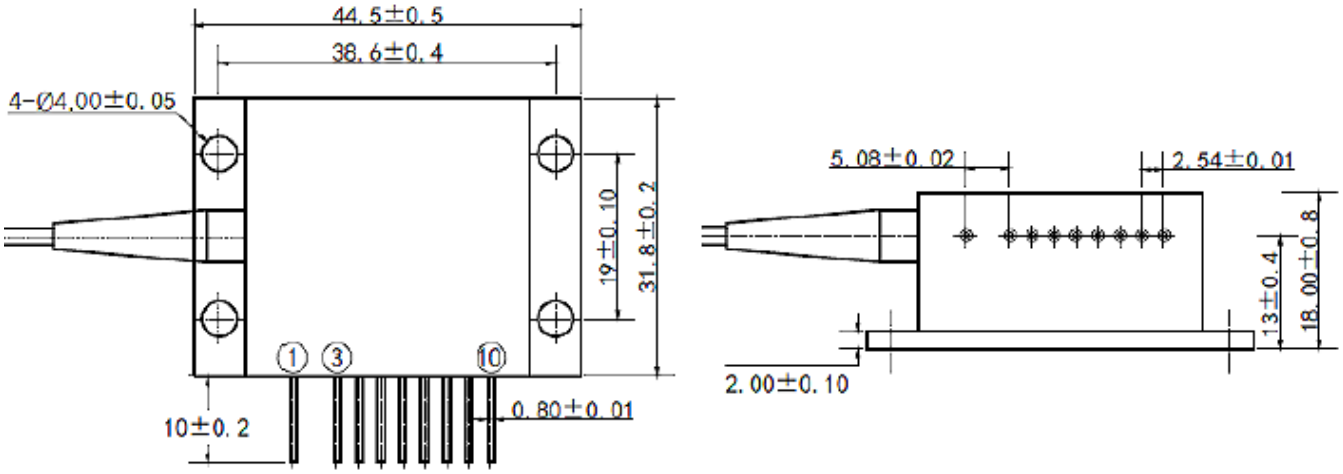
ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
TEL. +43 1 586 52 43 -0, FAX. -44 OFFICE@ROITHNER-LASER.COM

Electrical Connection

Pin Configuration*			
PIN #	**Function**	**PIN #**	**Function**
1	TEC -	6	Thermistor
2	-	7	LD Cathode
3	Case	8	PD Anode
4	LD Anode	9	PD Cathode
5	Thermistor	10	TEC +

* 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.