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SPM670-50-4-T8P

- **Red Pigtailed Laser Diode**
- **670 nm, 50 mW**
- **4 µm SM Fiber, FC/PC con.**
- **Built-in TEC**
- **8-pin HHL Package**

RoHS COMPLIANT

Pb Pb-Free

Description

SPM670-50-4-T8P is a red pigtailed laser diode, typically emitting at 670 nm with an output power of 50 mW. It comes in an 8-pin HHL package with **integrated TEC and thermistor**, and **4 µm single mode fiber** with FC/PC connector.

Maximum Rating

Parameter	Symbol	Min.	Max.	Unit
Reverse Voltage	V_R		2.0	V
Operating Temperature	T_{OPR}	10	+ 30	°C
Storage Temperature	T_{STG}	- 40	+ 80	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C

Electro-Optical Characteristics (T$_{CASE}$ = 25°C)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength		λ_P	660	670	680	nm
Spectral Width		λ_Δ		2.0		nm
Output Power		P_O		50		mW
Operating Voltage		V_F		2.8	3.5	V
Threshold Current		I_{th}		55	75	mA
Operating Current		I_O		200	220	mA
TEC Voltage		V_{TECMAX}			4.0	V
TEC Current		I_{TECMAX}			1.3	A
Thermistor		R_{TH}		10K		Ω
Fiber Spec.	Type			Single Mode		
	Core diameter			4		µm
	N.A.			0.12		
	Connector			FC/PC*		
	Length			80		cm

* SC / SMA905 con. and 62.5 µm core diameter available on request

ATTENTION
STATIC SENSITIVE DEVICES
HANDLE ONLY AT
STATIC WORK STATIONS

Electrical Connection

Pin #	Function*	Pin #	Function*
Pin 1	RT	Pin 5	NC
Pin 2	LD cathode	Pin 6	NC
Pin 3	LD anode	Pin 7	TEC -
Pin 4	RT	Pin 8	TEC +

* subject to change
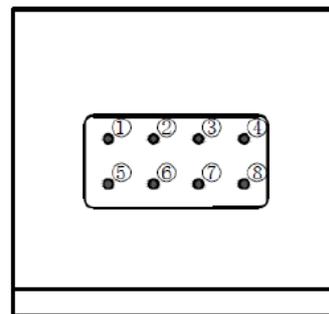
Outline Dimension
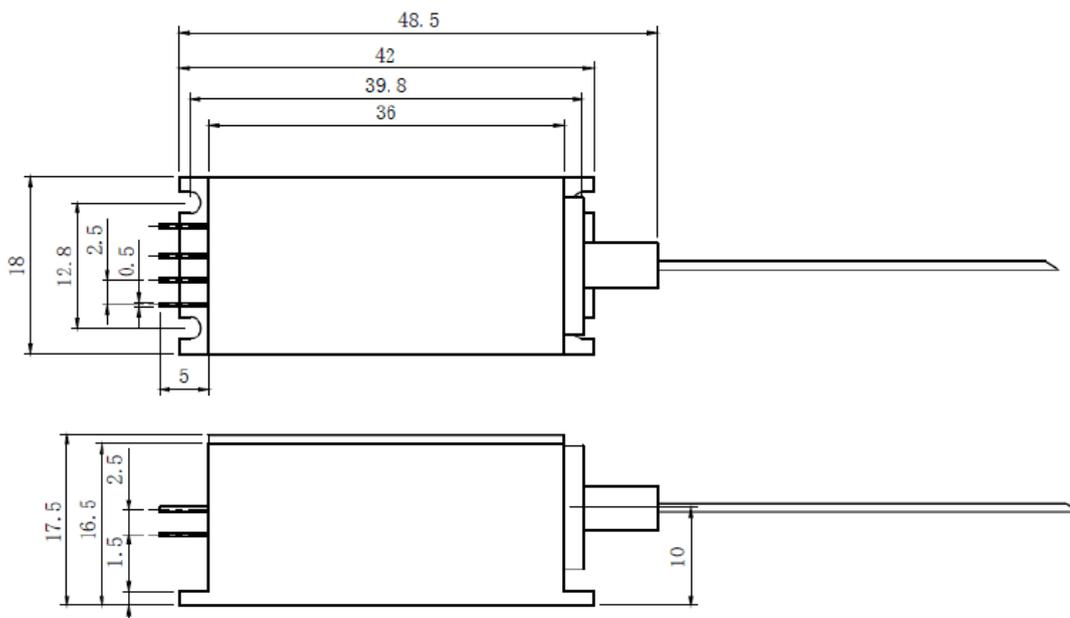
All dimensions in mm

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.