

Thermal Control TO Laser

Description

Optune-TTO-1550 is a thermal control TO laser that delivers wavelength controlled by mini-TEC inside of TO at specified wavelength 1550nm over C band. It is designed to perform well beyond the industry standard. Key features of this thermal control TO laser include high wavelength stability. This thermal control laser takes advantage of semiconductor laser chip with built-in TEC inside of TO56

The devices are packaged in a TO56 package with laser welding process providing high efficiency and stable output power and high reliability. The output fiber is a standard SMF-28 silica fiber.

Applications

- OTDR
- Optical measuring instrumentation
- Optical gas and chemical sensor

Features

- Center wavelength =1550.1±0.1nm
- Output power>5mW
- Internal thermoelectric cooler and thermistor
- RoHS Compliance

Specification

Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Max	Unit
Reverse Voltage	VR			2	V
Forward Current	IF			100	mA
Forward Voltage	VF	lop		1.5	V
Case Temperature	Tc	lop	-10	60	°C
Laser Temperature	TLaser	lop	10	50	°C
Thermoelectric Cooler Voltage	VTEC			4.3	V
Thermoelectric Cooler Current	ITEC			1.2	A
Storage Temperature	Tstg	Unbiase	-40	85	°C
Storage Humidity			5	85	%RH

Electro Static Discharge	VESD	Human body mode	500		V
Lead Soldering Temperature				260	°C
Lead Soldering Time				10	sec

Electro-Optical Characteristics

(TLaser=25°C, unless otherwise noted)

Parameter	Symbol	Condition	Min	Type	Max	Unit
Threshold Current	I _{th}	CW		6	10	mA
Output power	P _o	CW		5		mW
Operating Current	I _{op}	CW		20		mA
Operating Voltage	V _{op}	CW		1.3	1.5	V
Peak Wavelength		CW,20mA	1530		1550	nm
Fiber Type		SMF-28 9/125µm				
Optical Connector		FC/APC				
Fiber Length			1	1.5		m
Package Type		TO56				

Dimensions and PIN Assignment

