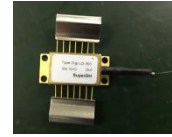


Pulsed High Power Laser

Description

Optune-PHPL-1500 is a pulsed high power laser that delivers more than +17 dBm of output power at specified wavelength 1465-1515nm. It is designed to perform well beyond the industry standard. Key features of this high power laser include high output power and exceptional wavelength stability. This high power takes advantage of semiconductor laser chip with built-in FBG.



The devices are packaged in a 14-pin butterfly 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 =1465nm~1515nm
- Pulse power>18dBm
- 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	Pulse width=20μs Duty=1%		400	mA
Forward Voltage	VF	lop		2	V
Case Temperature	Tc	lop	-10	60	°C
Laser Temperature	TLaser	lop	-10	70	°C
Thermoelectric Cooler Voltage	VTEC			4.3	V
Thermoelectric Cooler Current	ITEC			1.2	A
Storage Temperature	Tstg	Unbiase	-40	85	°C

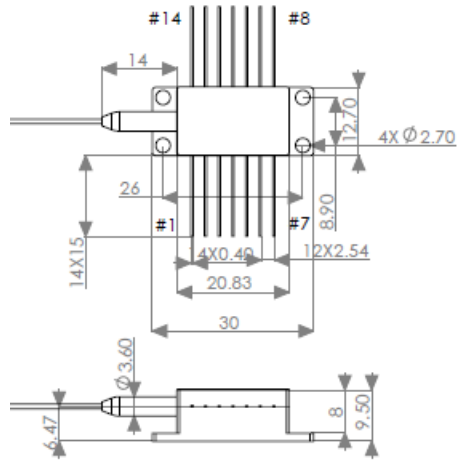
Storage Humidity			5	85	%RH
Electro Static Discharge	VESD	Human body mode	500		V
Lead Soldering Temperature				260	°C
Lead Soldering Time				10	sec

Electro-Optical Characteristics

(TLaser=25°C, unless otherwise noted)

Parameter	Symbol	Condition	Min	Type	Max	Unit
Threshold Current	I _{th}	CW		30	45	mA
Output power(CW)	P _o			17		dBm
Operating Current	I _{op}	Pulsed width=20μs duty=1%		400	500	
Operating Voltage	V _{op}	Pulsed width=20us duty=1%,IF=400mA		1.4	2.0	V
Peak Wavelength		CW,200mA	1465		1515	nm
Bandwidth at 20 dB(pulse)	BW			0.4		nm
Output power(pulse)	P _{pulse}	Pulse width=20μs, 0mA bias current,400mA pulse current, duty=1%	18			dBm
Wavelength Accuracy	Δλ		0.5			nm
Pulse Width	PW			20000		ns
Fiber Type		SMF-28 900μm loose tube				
Optical Connector		FC/APC				
Fiber Length			1	1.5		m
Package Type		14-pin BTF				

Dimensions and PIN Assignment



1	TEC (+)	14	TEC (-)
2	Thermistor	13	Case Ground
3		12	NC
4		11	Chip (-)
5	Thermistor	10	Chip (+)
6	NC	9	NC
7	NC	8	NC