

1590nm high power DFB laser module

OC459XX Series



Features

- 14 PIN Butterfly Package
- Output optical power up to 50 mW
- SMSR > 35 dB
- Qualified as per intent of Telcordia GR-468
- RoHS

Applications

- Test and measurement
- Laser source
- Optical Fiber Sensing

Description

OVLINK’ s OC459XX Series laser is 1590nm DFB Laser Module. The module has built-in components such as TEC, thermistor, MPD and optical isolator. With the advantages of high output power and stable wavelength, it is suitable to be used as a light source or in the field of optical fiber sensing.

Specification

❑ Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device.

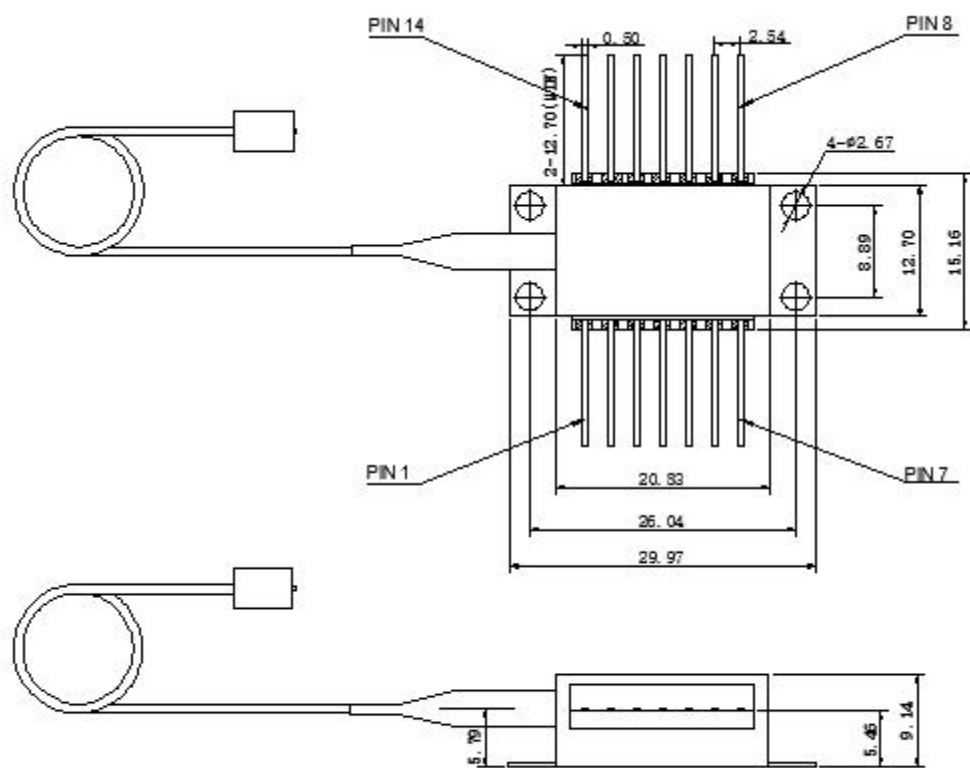
Parameter	Symbol	Min	Typ	Max	Unit
Storage Temperature	Ts	-40		85	° C
Relative Humidity	RH	0		85	%
LD Forward Voltage	V			2.5	V
LD Reverse Voltage	Vr			2	V
LD Forward Current	If			400	mA
MPD Reverse Voltage	VMPDR			10	V
TEC Current	ITEC			1.2	A
TEC Voltage	VTEC			3.5	V
ESD(HBM)	ESD		500		V

❑ Optical/Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current	Ith		50	70	mA
Operating Voltage	Vop		1.8	2	V
Operating Current	Iop			320	mA
Output Optical Power	Po		50		mW
Monitor Operating Current	Im	10		200	μA/mW
Center Wavelength	λ	1589	1590	1591	nm

Side-Mode Suppression Ratio	SMSR	35	40	dB	
Spectral Width (@-3dB)	$\Delta\lambda$		0.1	nm	
Relative Intensity Noise	RIN		-140	dB/Hz	
Thermistor Resistance	Rth	9.5	10	10.5	kOhm
Thermistor Sensitivity Index	β		3892	K	

□ Outline Drawing



1). Unit:mm]
2). Fiber length >1.2m

□ Connection

Pin Assignments			
1	Thermistor	8	Case Ground
2	Thermistor	9	Case Ground
3	LD (-)	10	NC
4	MPD ANODE	11	LD (+)
5	MPD CATHODE	12	LD (-)
6	TEC (+)	13	LD (+)
7	TEC (-)	14	NC

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