

1270nm-1610nm DFB SM Cooled coaxial laser diode Version: sample 18.09.06

Model: LSCDLLD

Features:

- MQW-DFB
- CWDM,1270nm-1610nm series,20nm one step
- High side-mode-suppression ratio (typical>35dB)
- High reliable, Built-in monitor PD
- Low threshold/operate current
- Hermetic package TO Can with TEC cooler and fiber coupling



Applications:

- Optical Sensing
- Optical communication
- Industrial automatic control
- Science analysis and experiment
- Test and Measurement Equipment



Absolute maximum ratings:

parameter	symbol	value	unit
Operating temperature	Top	-20~+85	°C
Storage temperature	Tstg	-40~+85	°C
Laser diode Reverse voltage	V _r	2	V
Soldering temperature/time		260/10	°C/S

Electrical and optical characteristics:(T=25°C)

parameter	symbol	Min.	Typ.	Max.	unit
Center wavelength	λ	1547	1550	1553	nm
Threshold Current	I _{th}		12		mA
Operating Current	I _{op}		30	40	mA
Operating Voltage	V _{op}		1.1	1.6	V
Output power(from fiber)	P		3		mW
Spectral width	$\Delta\lambda(-20dB)$		0.1	1	nm
Wavelength/Temp. Coefficient	$\Delta\lambda/\Delta T$		0.1	0.13	nm/°C
Side mode suppression ratio	SMSR	35	40		dB
Rise/ Fall time	Tr/Tf(I _{th} +20mA)		120		ps
Direct modulation rate	R(I _{th} +20mA)		2.5		Gbps
Monitoring Output Current	I _m (I _{th} +20mA)	0.02	1		mA
Monitor Dark current	I _d (V _r =5V)			200	nA
Monitor Capacitance	C (V _r =5V)		10		pF
TEC Current	I _{tec}		0.5	0.9	A
TEC Voltage	V _{tec}			1.2	V
Thermistor Resistance	R _s (T=25°C)	9.5	10	10.5	K Ω
Optical Isolation(note1)	Iso	30			dB Single
		50			dB Double
package	Hermetic package TO Can with TEC cooler and fiber coupling				

Note1: temperature range:-20~70°C.

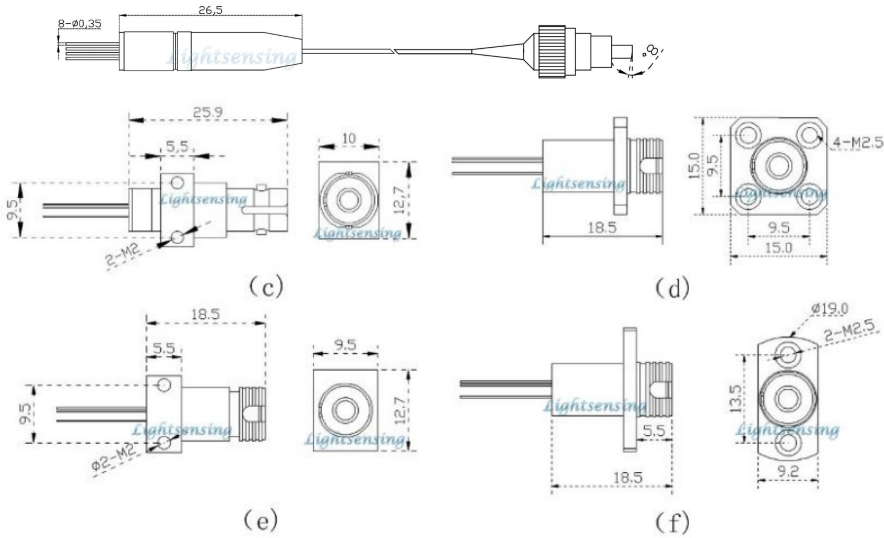
NOTICE: The above product specifications are subject to change without notice.

地址: 北京市海淀区苏州街 33 号 12 层 1202 邮编: 100080

Address: Floor 12 Rm 1202, No 33 Suzhou Street, Haidian District, Beijing 100080, China.

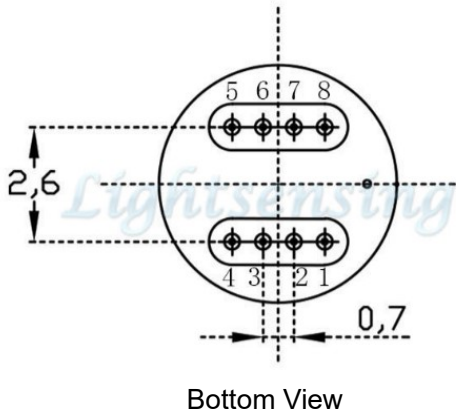
TEL: +86-010-82873449 FAX: +86-010-62557230 Email: info@lightsensing.com Website: www.lightsensing.com

The package Dimensions



PIN description

PIN OUT



Pin	Symbol	Description
1	Tec+	Tec anode
2	Rth	thermistor
3	PD-	PD cathode
4	PD+	PD anode
5	LD-	LD cathode
6	LD+	LD anode
7	Rth	thermistor
8	Tec-	Tec cathode

Order information

LSCDLDX-X-X-X-X

X=127 1270nm

 20nm one step
 X=155 1550nm
 20nm one step

 X=161 1610nm

mW
 X=3
 Other

Pin out
 X=C Cooled PIN

Isolator
 X=1 Single
 X=2 Double

X=SMFA/FP SM Fiber coupling with FC/APC or FC/PC connector
 X=cJKST c package with ST receptacle
 X=dJKFC d package with FC receptacle
 X=e JKFC e package with FC receptacle
 X=f JKFC f package with FC receptacle
 X=Other By customer's request

The cautions

- 1: The above product specifications are subject to change without notice.
- 2: The suitable ESD protecting measures are recommend in storage, transporting and using.
- 3: The fiber bending radius no less than 20mm for avoiding fiber damaged ,Be sure the fiber coupling facet is clean before connecting it to opto-circuit.