

## 1270-1610nm DFB SM coaxial laser diode Version: 3.1 17-03-01

**Model: LSCDLLD**

**Features:**

- MQW-DFB, High reliable
- 1270nm-1610nm series, 20nm one step
- Single mode
- Good high temperature characteristic
- High side-mode-suppression ratio (typical > 35dB)
- Built-in monitor PD
- Low threshold/operate current
- Metal can type hermetic



**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	-40~+85	°C
Storage temperature	Tstg	-40~+100	°C
Laser diode Reverse voltage	V <sub>r</sub>	2	V
Soldering temperature/time		260/10	°C/S

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

parameter	symbol	Min.	Typ.	Max.	unit
Center wavelength	$\lambda$	1267	1270	1273	nm
Threshold Current	I <sub>th</sub>		10	15	mA
Operating Current	I <sub>op</sub>		35	40	mA
Operating Voltage	V <sub>op</sub>		1.2	1.5	V
Output power(from fiber)	P	0.5	2	4	mW
Spectral width	$\Delta\lambda$		0.2	1	nm
Side mode suppression ratio	SMSR	35	40		dB
Rise/ Fall time	Tr/Tf(I <sub>th</sub> +20mA)		0.3	0.7	ns
Monitoring Output Current	I <sub>m</sub> (I <sub>th</sub> +20mA)	0.1	0.7		mA
Monitor Dark current	I <sub>d</sub> (V <sub>r</sub> =5V)			100	nA
Monitor Capacitance	C (V <sub>r</sub> =5V)		10		pF
Optical Isolation(note1)	Iso	30			dB Single
		50			dB Double
package	TO56 Can with SM fiber coupling or receptacle				

Note1: temperature range:-20~70°C

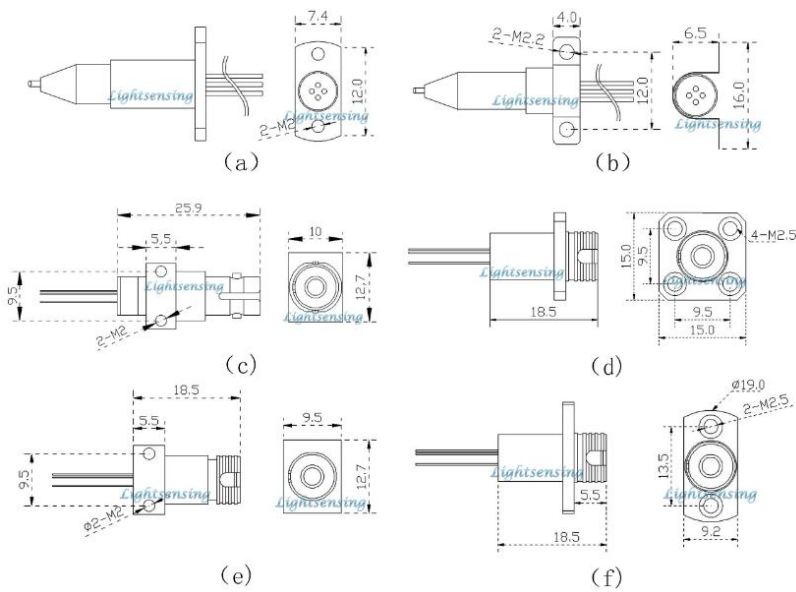
**NOTICE:** The above product specifications are subject to change without notice.

地址: 北京市海淀区苏州街12号西屋国际E座1201 邮编: 100080

Address: Building E Rm 1201, Westing house, No 12 Suzhou Street,, Haidian District, Beijing 100080, China.

TEL: +86-010-82873449 FAX: +86-010-62557230 Email: [info@lightsensing.com](mailto:info@lightsensing.com) Website: [www.lightsensing.com](http://www.lightsensing.com)

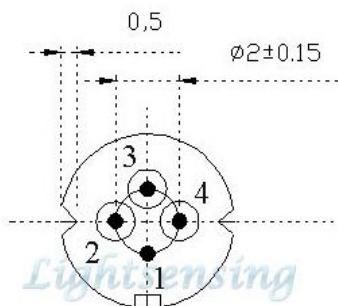
### The package Dimensions



### PIN description

### PIN OUT

Bottom View



	F type	S type
1	LD(+)/case	case
2	LD(-)	LD(-)
3	PD(-)	PD(+)
4	PD(+)	LD(+)/PD(-)

### Order information

LSCDLX-X-X-X-X-X

- wavelength
  - X=127 1270nm
  - X=129 1290nm
  - ..... 20nm one step
  - x=161 1610nm
- mW
  - X=0.5
  - X=2
  - X=4
  - Other
- Pin out
  - X=S S Type
  - X=F F Type
- Rate
  - X=1 1.25Gbps
  - X=2 2.5Gbps
  - Other
- Isolator
  - X=0 NO
  - X=1 Single
  - X=2 Double
- X=a a package with SM Fiber with FC/UPC or FC/APC
- X=b b package with SM Fiber with FC/UPC or FC/APC
- 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 suitable ESD protection is required in storage, transportation and using
- 2: 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.