

1550nm MQW-DFB Laser Diode with pigtail(3-6mW)

Features:

- ◆ Coaxial package
- ◆ High stability DFB laser chip
- ◆ Output power up to 6mW
- ◆ Operating Case Temperature: -40°C to +85°C
- ◆ Single-mode fiber pigtailed with SC, FC, ST or LC connector
- ◆ Optional with Isolator



Applications:

- ◆ CATV forward-path
- ◆ Analog transmission
- ◆ ROF systems

General:

The high quality DFB laser diode with coaxial package can meet the requirements of high linearity and high power of CATV optical transmitter system, analog system and ROF systems.

Absolute Maximum Ratings: ^{*Note1}

Parameter	Symbol	Ratings	Unit
Storage Temperature	Tstg	-40~+85	°C
Operating Case Temperature	Top	-40~+85	°C
Soldering Temperature (<10s)	Stemp	260	°C

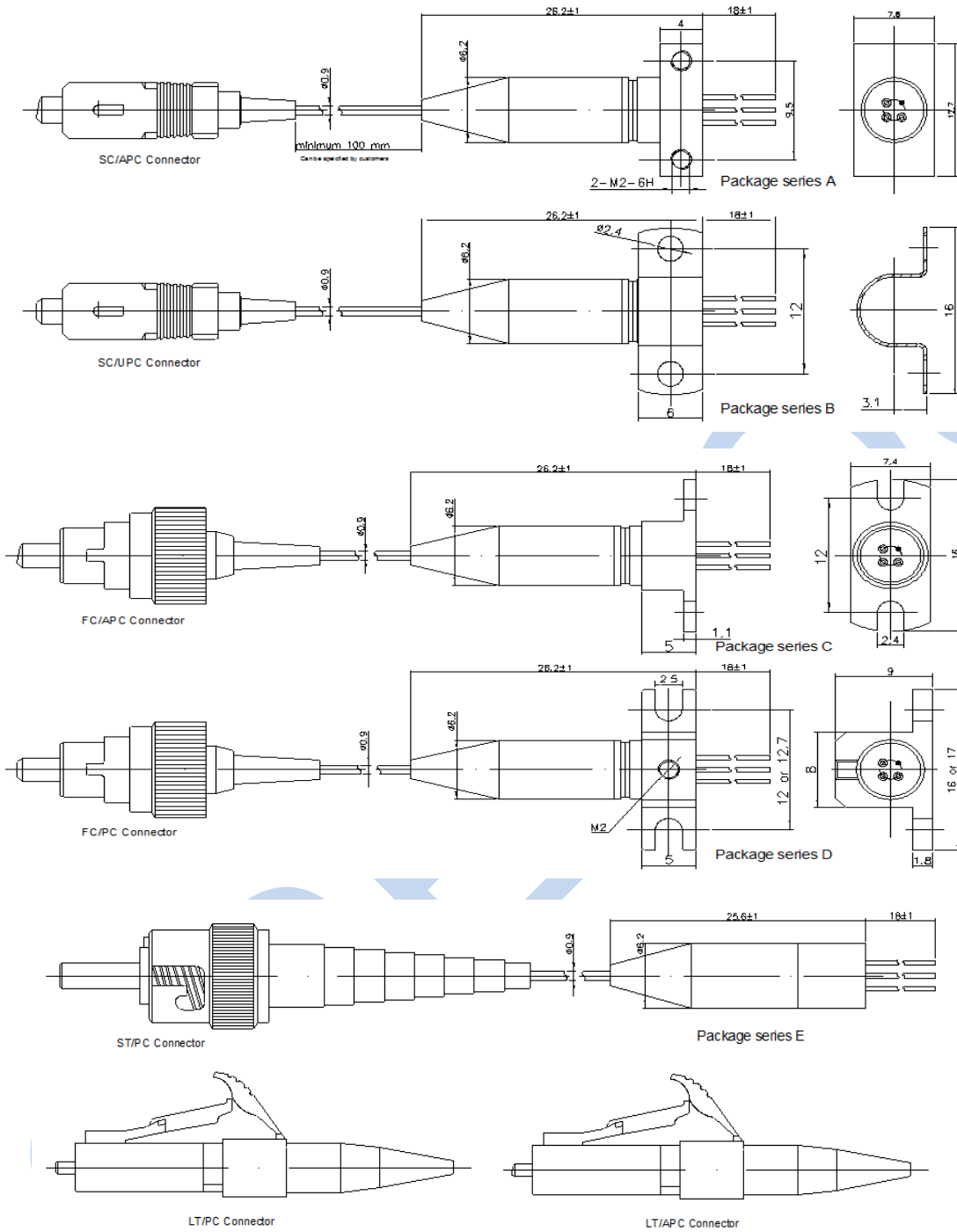
*Note1: Exceeding any one of these values may destroy the device immediately.

Electrical and Optical Characteristics:

(Tc=+25°C, unless otherwise noted.)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	CW	—	—	15	mA
Output Power	P _o	CW, I _{op} =45mA	—	4	—	mW
Operating Voltage	V _f	CW, T=25 °C	—	1.1	2.0	V
Center Wavelength	λ _c	CW, T=25 °C	1530	1550	1570	nm
Side-mode suppression ratio	SMSR	CW, I _{op} =45mA	30	40	—	dB
Carrier Noise Ratio	CNR	84CH,PAL	51	—	—	dB
IMD2	CSO	84CH,PAL	—	—	-55	dBc
IMD3	CTO	84CH,PAL	—	—	-65	dBc
Spectral Width (-20 dB)	—	CW, T=25 °C	—	1	2	nm
Monitor Current	I _m	V _R =5V	100	—	2000	uA
Monitor Dark Current	I _d	V _R =5V	—	—	0.1	uA
Optical Isolation	—	Single Stage	35	—	—	dB

Pigtail Package Dimension: *Note2、3、4



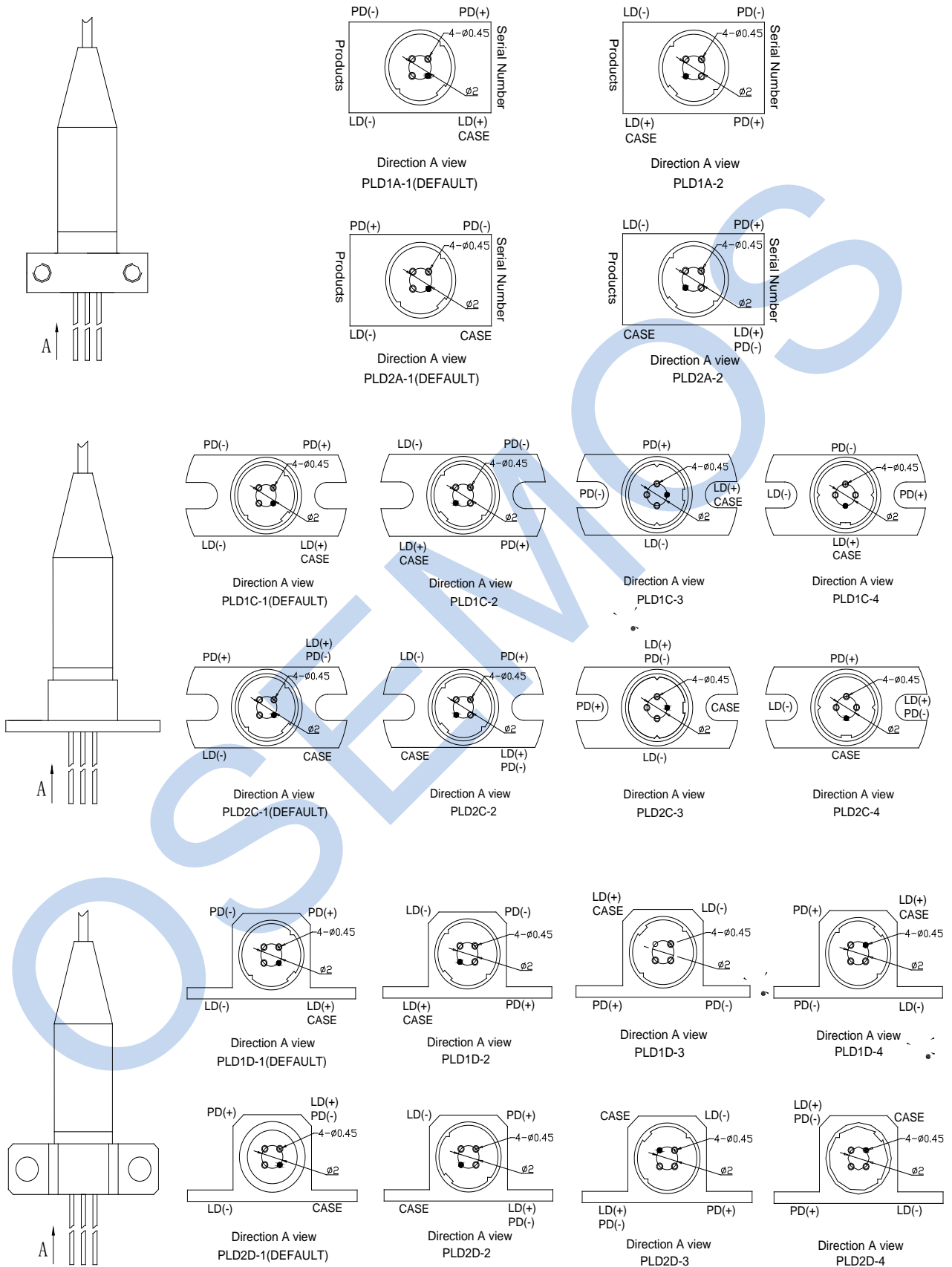
*Note2: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

*Note3: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

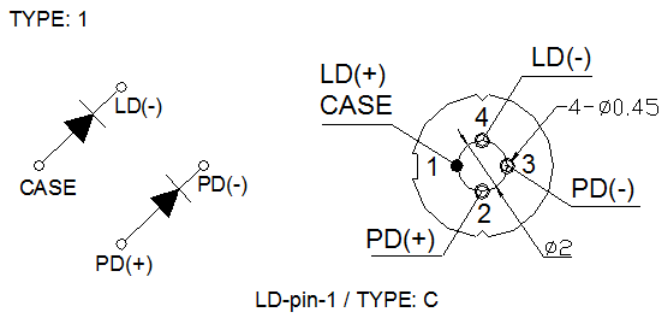
Fixed card type	A(mm)	B(mm)
D	16	12
D-S	17	12.7

*Note4: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of A, C, D package series, please refers the following graphs.

The Direction of Fix Card:



Pin Assignment:



Nomenclature:

OSMDAP —

A B C D E F G H

NO	Parameter	Detailed Description				
A	Wavelength	5=1550				
B	Data Rate	1=1.25G		2=2.5G		
C	Power	A=3-4mw	B=4.1-5mw		C=5.1-6mw	
D	Package Series	A	B	C	D	E
E	Connector	F=FC/PC	S=SC/PC		T=ST/PC	L=LC/PC
		FA=FC/APC	SA=SC/APC		Blank=None	
F	Pin Type	1=LD-pin-1				
G	Isolator	Blank=None	G= Single Stage		G2=Dual Stage	

Precaution:

- (1) The modules should be handled in the same manner as ordinary semiconductor devices to prevent the electro-static damages. For safe keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.

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