

**CWDMTX DFB 1550nmRX PD Pigtail BOSA (Analog Transmission)****Features:**

- ◆ Coaxial Package
- ◆ InGaAsP/InP MQW-DFB Laser Diode
- ◆ Low threshold, high slope efficiency and high output power
- ◆ Operating Case Temperature: 0°C to +85°C
- ◆ Single-mode fiber pigtailed with SC/FC/ST or LC connector
- ◆ High channel isolation
- ◆ Low return loss
- ◆ Optional with Isolator

**Applications:**

- ◆ Long distance digital transmission system
- ◆ Private optical networks
- ◆ Subscriber loops
- ◆ Fiber-optic transceiver
- ◆ Cable television system

**Absolute Maximum Ratings:**

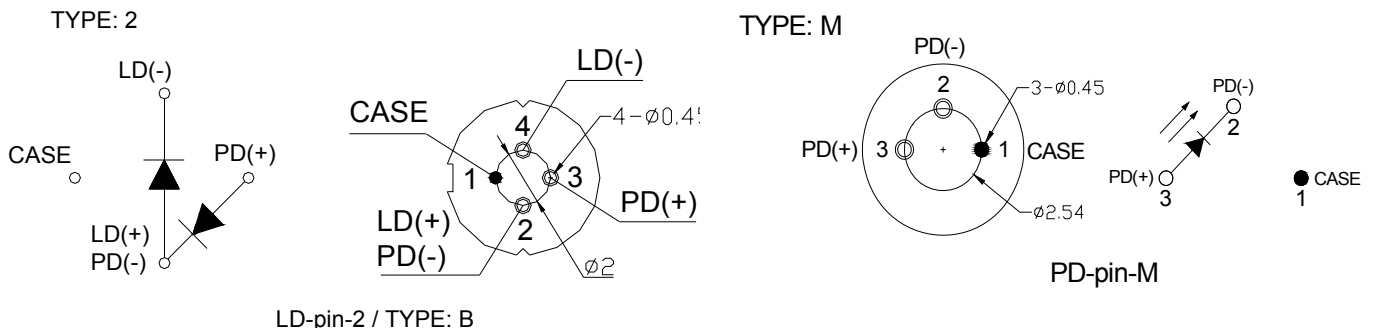
Parameter	Symbol	Ratings	Unit
Storage Temperature	Tstg	-40~+85	°C
Operating Case Temperature	Top	0~+85	°C
Reverse Voltage (LD)	V <sub>RL</sub>	2	V
Reverse Voltage (PD)	V <sub>RD</sub>	20	V
Photodiode Forward Current(PD)	I <sub>FD</sub>	2	mA
Soldering Temperature (<10s)	Stemp	260	°C

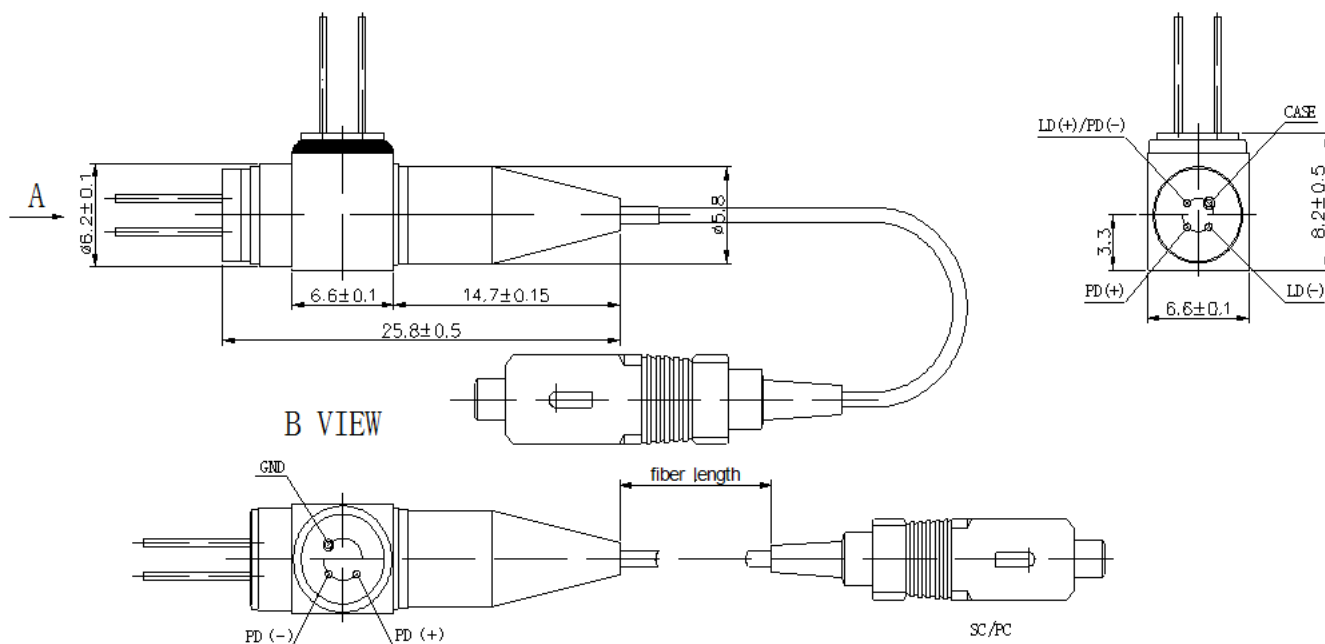
**Electrical and Optical Characteristics – Transmitter:**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I <sub>th</sub>	at T <sub>c</sub> =25±3°C	—	8	15	mA
Output Optical Power	P <sub>f</sub>	CW, I <sub>op</sub> =I <sub>th</sub> +20mA,	1	—	1.59	mW
Center Wavelength	λ <sub>c</sub>	CW, I <sub>op</sub> =I <sub>th</sub> +20mA,	-3	—	+3	nm
Operating Voltage	V <sub>op</sub>	CW, I <sub>op</sub> =I <sub>th</sub> +20mA,	—	1.1	1.5	V
Side-mode suppression ratio	SMSR	CW, I <sub>op</sub> =I <sub>th</sub> +20mA,	35	40	—	dB
Tracking Error	TE	APC, 0°C/+25°C, +25°C/+85°C	-1.5	—	1.5	dB
Monitor Current	I <sub>mon</sub>	CW, I <sub>op</sub> =I <sub>th</sub> +20mA,	0.1	—	1.0	mA
Monitor Dark Current	I <sub>d</sub>	VRD=5V	—	—	0.1	μA
Optical Isolation	Iso	Single Stage	—	20	—	dB
		Dual Stage	—	30	—	

**Electrical / Optical Specifications – Receiver:**

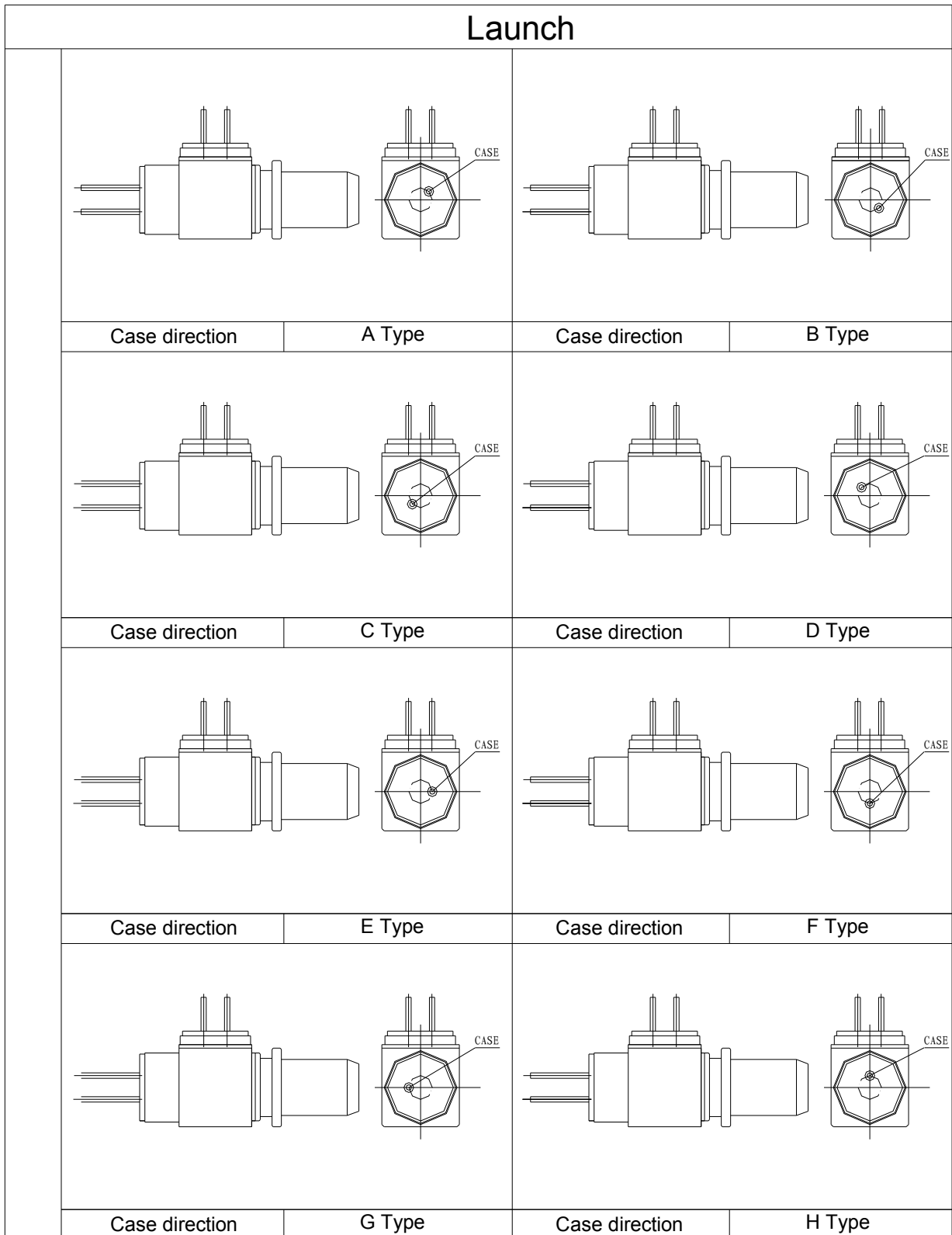
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Detection Wavelength Range	λ	—	1540	1550	1560	nm
Active Diameter	Φ	—	—	75	—	μm
Responsivity	R	λ=1550nm	0.8	—	—	A/W
Dark Current	I <sub>d</sub>	VR = 5V	—	—	1	nA
-3dBm Bandwidth	BW		1.5	—	3.2	GHz

**Pin Assignment:**


**Pigtail Package Series: \*Note1**


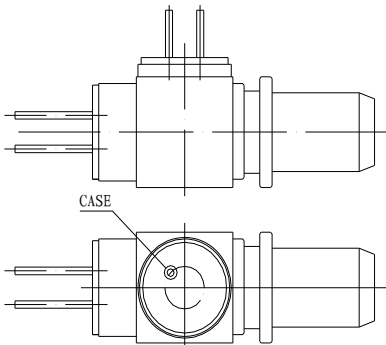
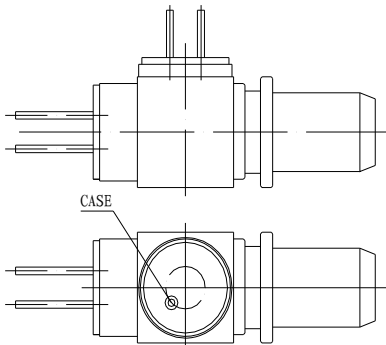
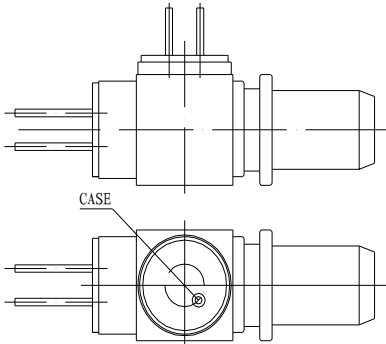
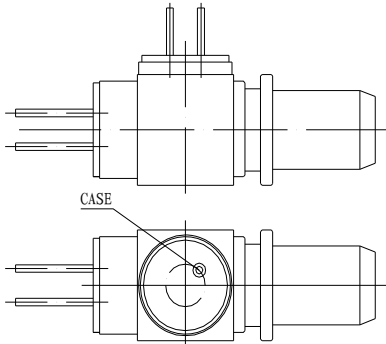
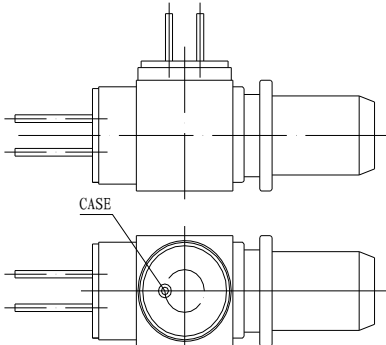
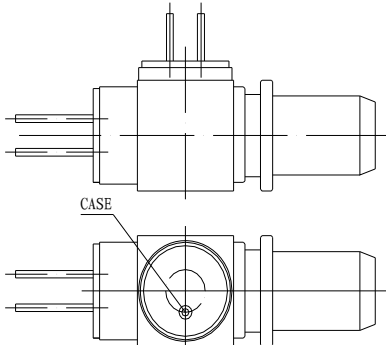
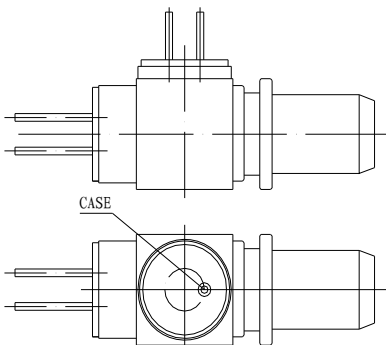
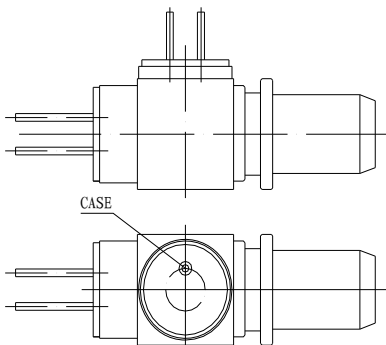
Note1: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

**TX Pin Order Code** \*Note2、3、4



- 2、 This picture is for pluggable, pigtail BIDI chip PIN package direction's reference
- 3、 This picture is suitable for RX Pin direction comparison .
- 4、 The package direction is described as "x-x" For example "A-B", "A" is TX chip Pin direction, "B" is RX chip Pin direction

**RX Pin Order Code:**

Receive			
			
Case direction	A Type	Case direction	B Type
			
Case direction	C Type	Case direction	D Type
			
Case direction	E Type	Case direction	F Type
			
Case direction	G Type	Case direction	H Type

**Nomenclature:**
**HEBIDI-**                                             
  
A B C D E F G H I J K L M N O

Code	Parameter	Detailed Description							
A	Laser Type	D=DFB LD							
B	Launch Wavelength	A=1270	B=1290	C=1310	D=1330	E=1350	F=1370		
		G=1390	H=1410	I=1430	J=1450	K=1470	L=1490		
		R=1610							
C	Launch Data Rate	1=1.25G				2=2.5G			
D	Output Power	04=0.3~0.49		08=0.5~0.99			15=1~1.59mW		
E	TX Pin Type	2=LD-pin-2							
F	Receiver Wavelength	5=1550							
G	Receiver Bandwidth	0≤1.5GHz		1≤2.7GHz			2≤3.2GHz		
H	RX Pin Type	C= pin-C							
J K	Connector	F=FC/PC		S= SC/PC		T=ST/PC		L=LC/PC	
		FA=FC/APC			SA= SC/APC			N= None	
	TX Pin Package Direction	A	B	C	D	E	F	G	H
L	RX Pin Package Direction	A	B	C	D	E	F	G	H
M	RX TO Insulated With Shell	Blank=Insulation				N=NO Insulation			
N	Isolator	Blank=None				G=with I			
O	Fiber Length	Blank=55cm		035=35cm		100=100cm		XXX=Customized	

**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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