

10G 1270nmTX/1330nm RX&1330nmTX/1270nm RX DFB'PT with Isolator LC**BOSA****Features:**

- ◆ Coaxial Package
- ◆ InGaAsP/InP MQW-DFB Laser Diode
- ◆ Low threshold, high slope efficiency and high output power
- ◆ Operating Case Temperature: -40°C to +85°C
- ◆ High channel isolation
- ◆ Low return loss
- ◆ Optional with Isolator

Applications:

- ◆ Long distance digital transmission system
- ◆ Cable television system
- ◆ WDM systems

Absolute Maximum Ratings:

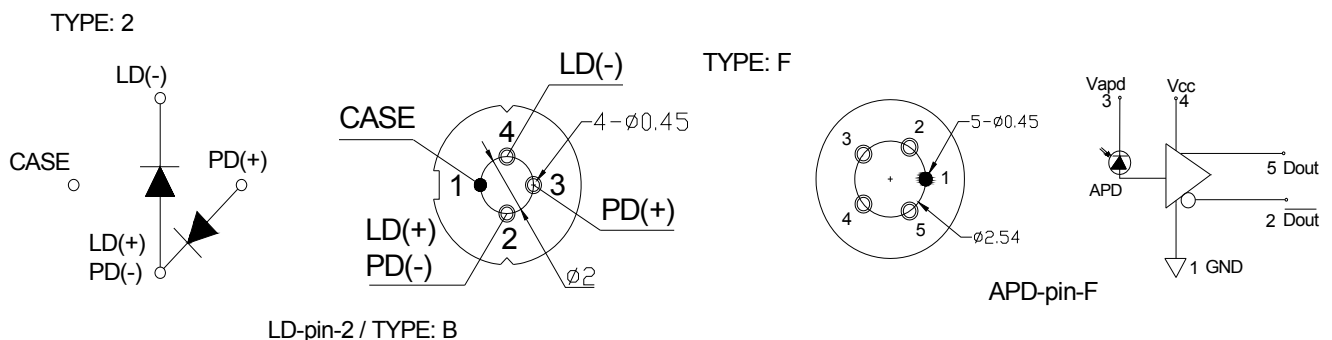
Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	Tstg	-40	85	°C
Operating Case Temperature	Topr	-40	85	°C
Reverse Voltage(LD)	V _{RL}	---	2	V
Reverse Voltage(PD)	V _{RD}	---	20	V
Photodiode Forward Current(PD)	I _{FD}	---	2	mA
LD Direct Forward Current	I _{FL}	---	120	mA

Electrical and Optical Characteristics – Transmitter:

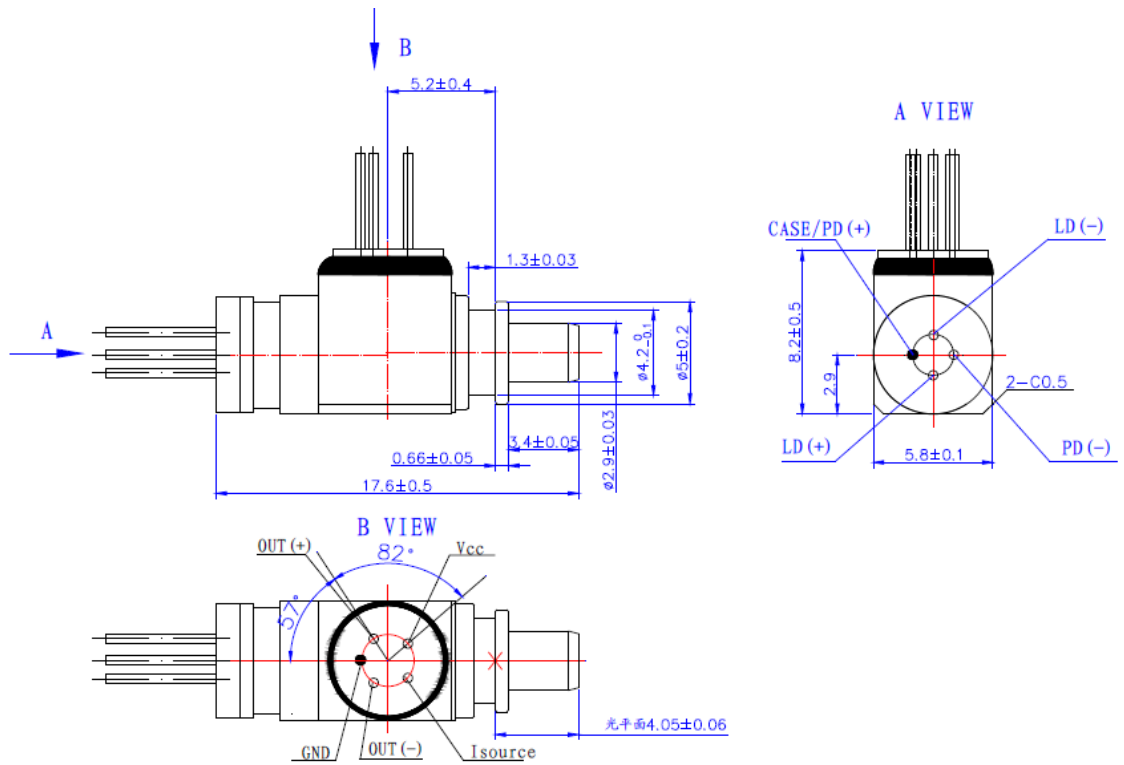
Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Output Optical Power	Pf	0.5	---	---	mW	CW, Iop=Ith+20mA, Tc=25°C
Threshold Current	Ith	---	5	---	mA	at Tc=25°C
Peak Wavelength	λ_p	1260	1270	1280	nm	Tc=25°C
		1320	1330	1340		
Side Mode Suppression Ratio	SMSR	35	40	---	dB	CW, Tc=0~85°C
Operating Voltage	Vop	---	---	1.7	V	CW, Iop=Ith+20mA,
Monitor Current	Im	0.05	---	1.0	mA	CW, Iop=Ith+20mA,
Tracking Error	TE	-1.5	---	1.5	dB	Iop=Ith+20mA, , -40°C/+25°C, +25°C/+85°C
Optical Isolation	Iso	30	---	---	dB	Single Stage

Receiver Optical and Electrical Specifications:

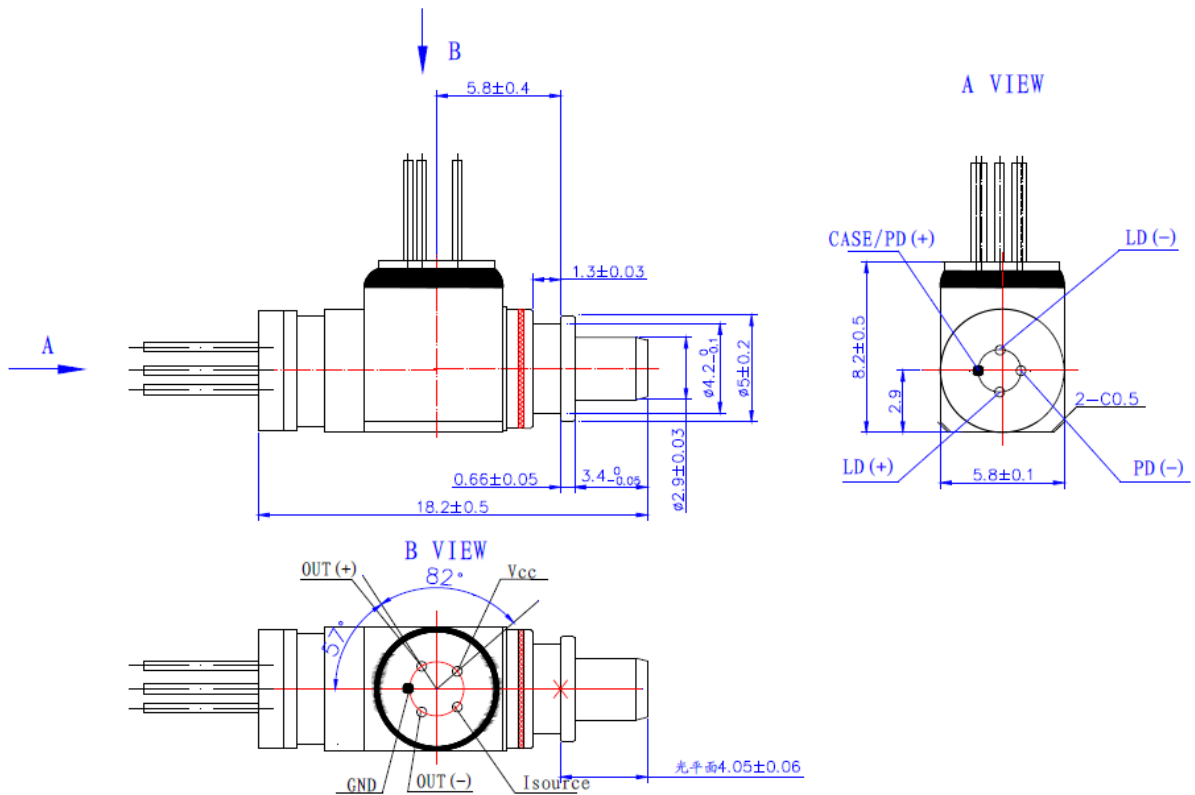
Description	Symbol	Min.	Typ.	Max.	Unit	Note
Wavelength	λ	1320	1330	1340	nm	---
		1260	1270	1280		---
Power Supply	Vcc	2.97	3.3	3.46	V	---
Supply Current	Icc	---	27	34	mA	---
Small Signal Bandwidth	BW	8	---	---	GHz	---
Low-Frequency Cut off	LF	---	14	30	KHz	---
Saturation Power	P _{sat}	0	---	---	dBm	---
RSSI	---	88	---	---	mV	$\lambda=-12\text{dBm}, R=2000\Omega$

Pin Assignment:


Package Dimension:

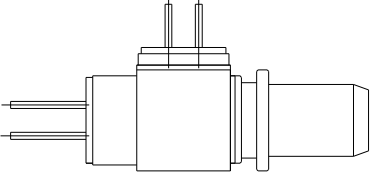
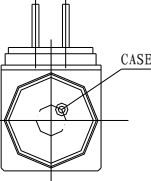
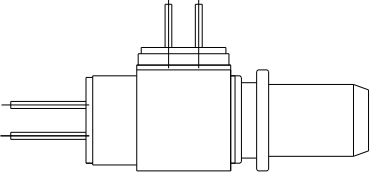
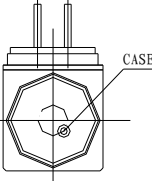
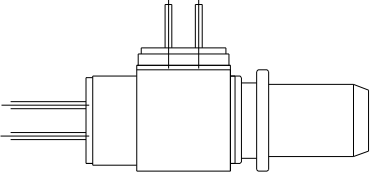
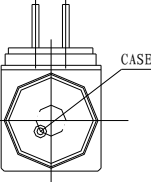
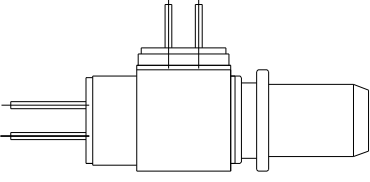
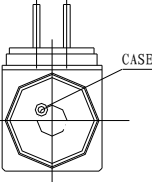
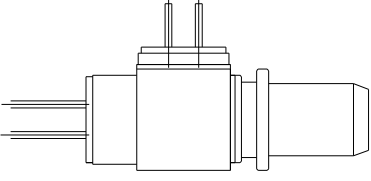
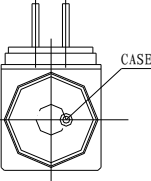
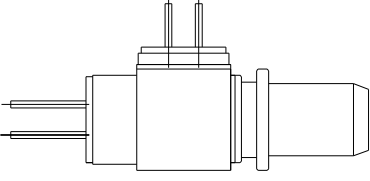
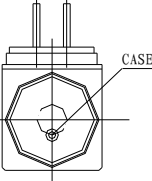
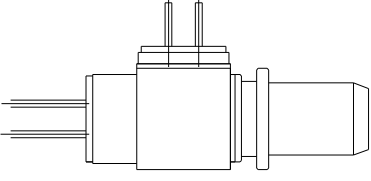
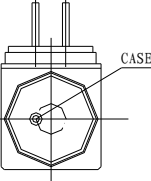
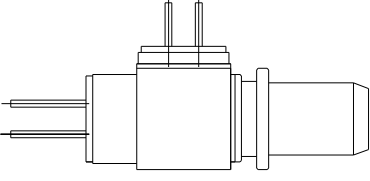
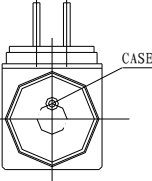


LC/PC receptacle (Non-electrical isolation)

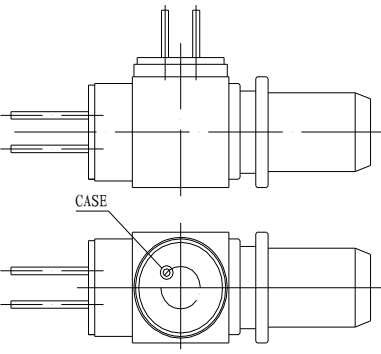
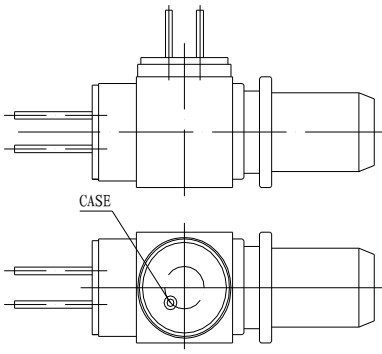
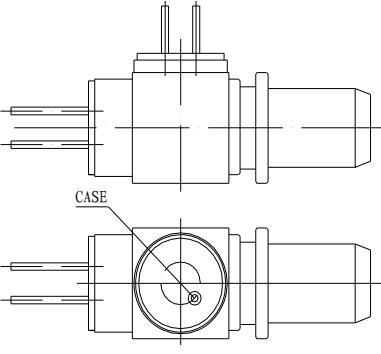
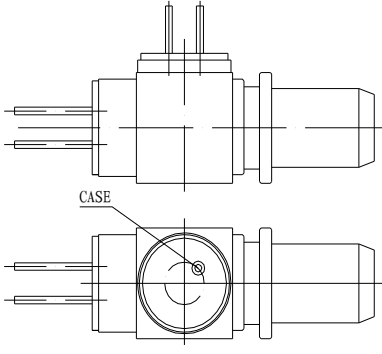
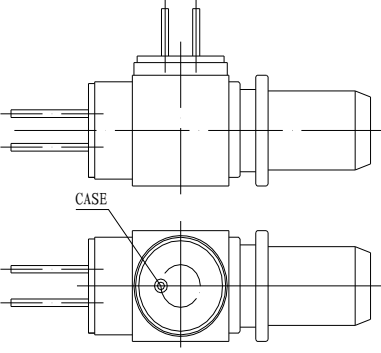
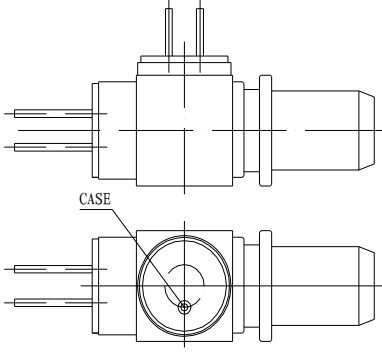
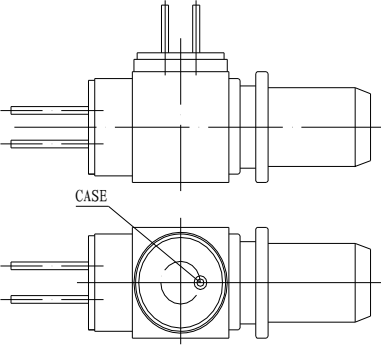
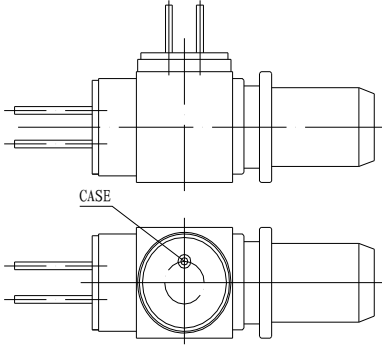


LC/PC receptacle (Electrical isolation)

TX Pin Order Code:

Launch			
			
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

RX Pin Order Code:

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

Nomenclature:

HEBS -
 A B C D E F G H I J

Code	Parameter	Detailed Description							
A	Laser Type	D=DFB LD							
B	Connector Type	1= Non-electrical isolation				2= Electrical isolation			
C	Launch Wavelength	A=1270				B=1330			
D	Launch Data Rate	10=10G							
E	Output Power	A=0.5~0.99				B=1~1.59mW			
F	Receiver Wavelength	A=1270				B=1330			
G	Receiver Data Rate	T=10G							
H	TX Pin Package Direction	A	B	C	D	E	F	G	H
I	RX Pin Package Direction	A	B	C	D	E	F	G	H
J	Isolator	G=with I							

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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