

EPON ONU BOSA 1.25G 1310nmTX/1.25G 1490RX

HETRR-F310293SC

**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:

- ◆ EPON ONU side
- ◆ 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
Lead Soldering (Temperature)/(Time)	---	---	260/10	°C/Sec

1.25G Transmitter Specifications:

Unless specified else, the specifications below are defined at TC=25±3°C

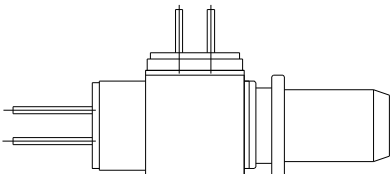
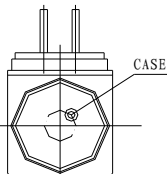
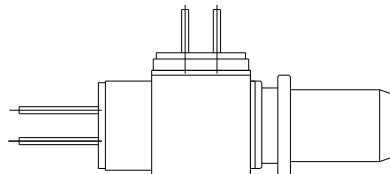
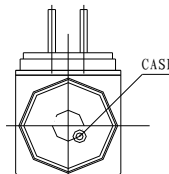
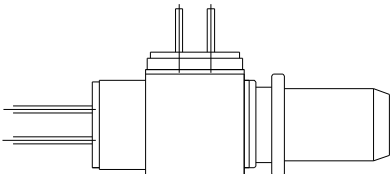
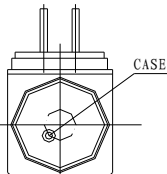
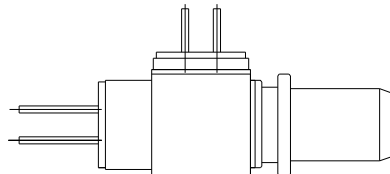
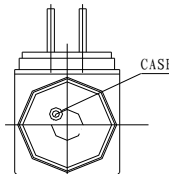
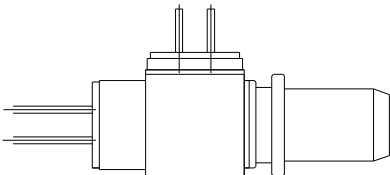
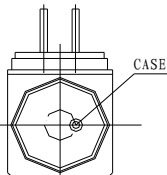
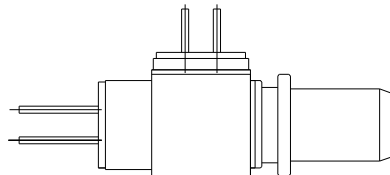
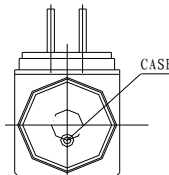
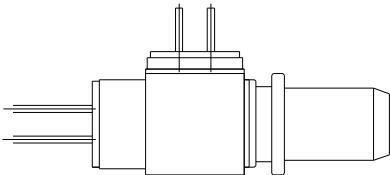
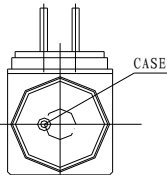
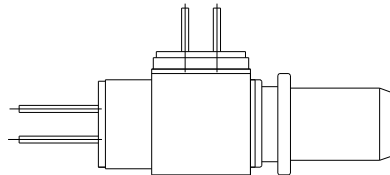
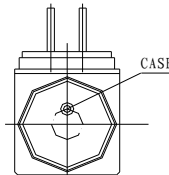
Description	Symbol	Min.	Typ.	Max.	Unit	Condition
Threshold Current	I _{th}	---	6	15	mA	at T _c =25°C
Output Optical Power	P _o	1.2	---	---	mW	CW, I _{op} =I _{th} +20mA,
Peak Wavelength	λ	1290	1310	1330	nm	CW, I _{op} =I _{th} +20mA,
Spectral Width	Δλ	---	---	2.5	nm	CW, I _{op} =I _{th} +20mA,
Operating Voltage	V _{op}	---	1.2	1.5	V	CW, I _{op} =I _{th} +20mA,
Tracking Error	TE	-1.5	---	1.5	dB	I _{op} =I _{th} +20mA, -40°C/+25°C, +25°C/+85°C
Monitor Current	I _{mon}	0.05	---	0.5	mA	CW, I _{op} =I _{th} +20mA,
Monitor Dark Current	I _d	---	---	0.1	μA	VRD=10V
Rise Time/Fall Time	T _r /T _f	---	0.1	0.3	ns	20%~80%

1.25G Receiver Specifications:

Unless specified else, the specifications below are defined at TC=25±3°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Operating Wavelength	λ	1480	1490	1500	nm	---
Voltage	V _{cc}	3.0	3.3	3.6	V	---
Supply Current	I _{cc}		28	35	mA	---
Bandwidth	BW	730	---	---	Mhz	
Sensitivity	Sens	---	---	-28	dBm	BER=10 ⁻¹⁰ @1.25G PRBS=2 ⁷ -1
Optical Isolation from External Source	ISO1	40	---	---	dB	λ=1310nm
	ISO2	35	---	---	dB	λ=1550nm

TX Pin Order Code *Note1. 2. 3

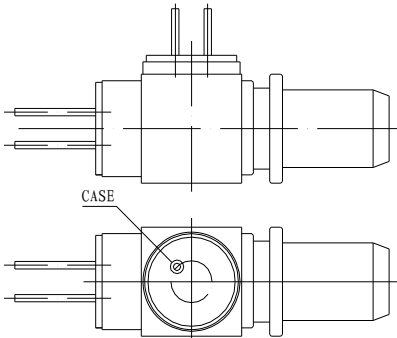
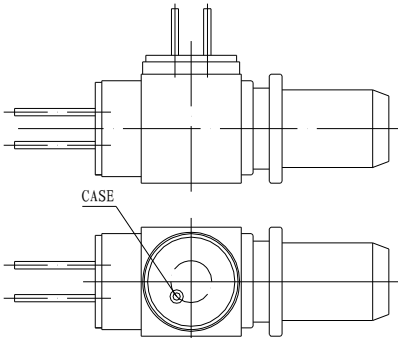
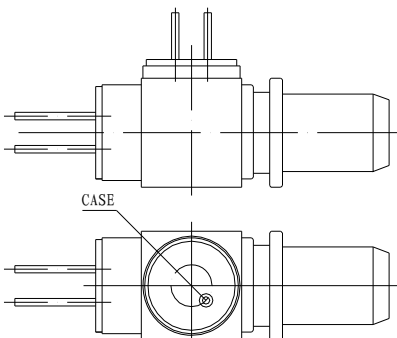
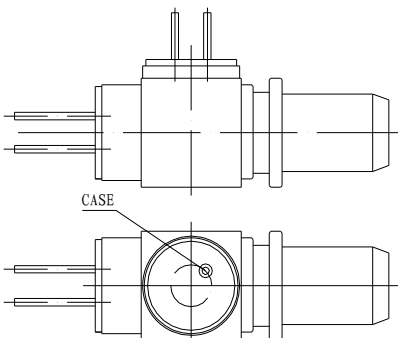
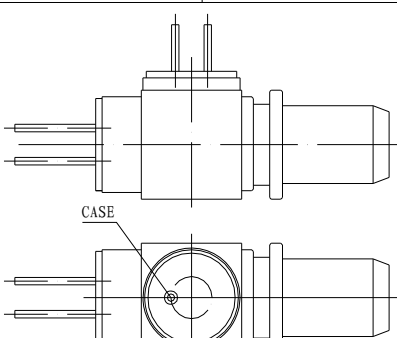
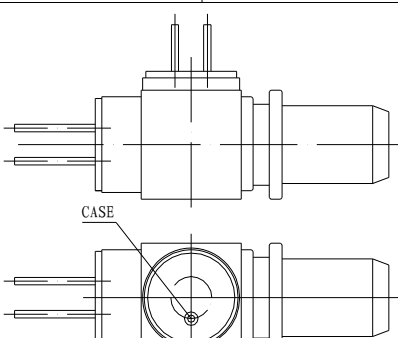
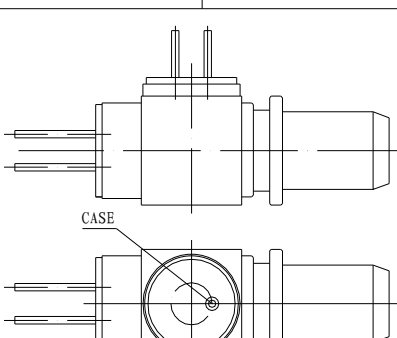
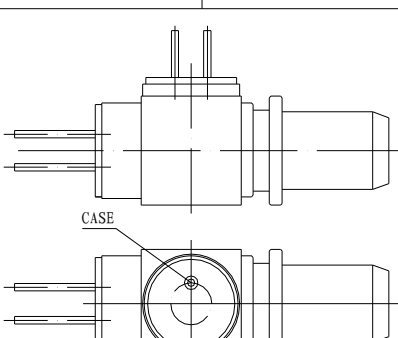
Launch			
			
Case direction	A Type	Case direction	B Type
			
Case direction	C Type	Case direction	D Type
			
Case direction	E Type	Case direction	F Type
			
Case direction	G Type	Case direction	H Type

Note1、 This picture is for pluggable, pigtail BIDI chip PIN package direction's reference.

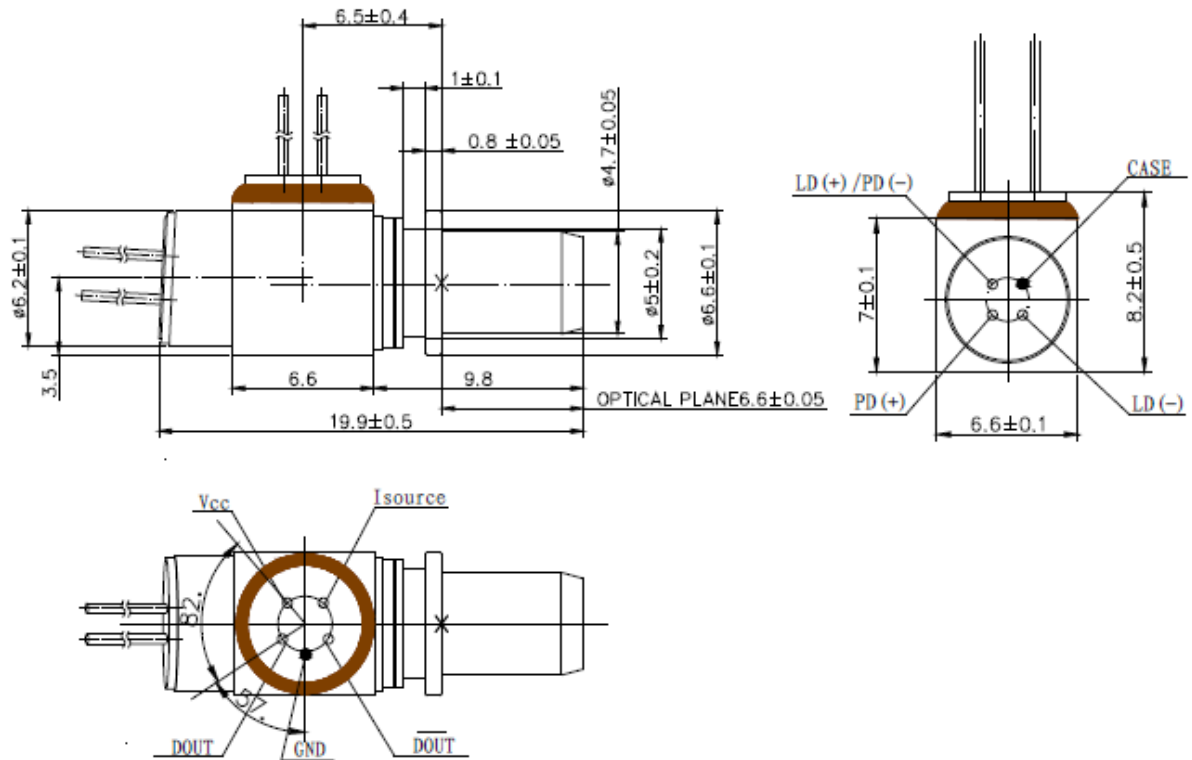
Note2、 This picture is suitable for RX Pin direction comparison.

Note3、 The package direction is described as "x-x" For example "A-B", "A" is TX chip Pin direction, "B" is RX chip Pin.

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

Package Dimension:



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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