



## BOSA 10Gbps

### Features:

- High-stability 1xx0nm DFB laser
- InGaAs PIN Photodiode
- Single +3.3V power Supply

### Applications:

- Optical communication systems

### Specifications:

#### Absolute Maximum Ratings

Parameter	Symbol	Min	Max.	Unit
LD Reverse Voltage	$V_{r(LD)}$	--	2	V
LD Forward Current	$I_{f(LD)}$	--	120	mA
PD Forward Current	$I_{f(PD)}$	--	2	mA
PD Reverse Voltage	$V_{r(PD)}$	--	20	V
Operating Temperature	$T_{op}$	-20	85	°C
Storage Temperature	$T_{stg}$	-40	85	°C
Lead Solder Temperature	--	--	260	°C
Lead Soldering Time	--	--	10	s

#### Transmitter Optical & Electrical Characteristics (T=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Threshold Current	I <sub>th</sub>	25°C	--	--	12	mA
		85°C	--	--	40	mA
Forward Voltage	V <sub>f</sub>	I <sub>op</sub> =I <sub>th</sub> +20mA	--	--	1.7	V
Monitor Current(MPD)	I <sub>m</sub>	I <sub>op</sub> =I <sub>th</sub> +20mA	50	--	1000	uA
Dark Current(MPD)	I <sub>d</sub>	V <sub>r</sub> =5V	--	--	100	nA
Optical Output Power	P <sub>o</sub>	I <sub>op</sub> =I <sub>th</sub> +20mA, 25°C	0.8	--	1.6	mW
		I <sub>op</sub> =I <sub>th</sub> +20mA, 85°C	0.5	--	--	mW
Slope efficiency	SE	I <sub>op</sub> =I <sub>th</sub> +20mA, 25°C	0.04	--	0.08	mW/mA
		I <sub>op</sub> =I <sub>th</sub> +20mA, 85°C	0.025	--	--	mW/mA
Central Wavelength	Y	I <sub>op</sub> =I <sub>th</sub> +20mA	Y-10	Y	Y 10	nm
Spectral Width , -20dB		I <sub>op</sub> =I <sub>th</sub> +20mA	--	--	1	nm
Side-mode suppression Ratio	SMSR	I <sub>op</sub> =I <sub>th</sub> +20mA	30	--	--	dB
Rise/Fall Time	Tr/Tf	20~80%	--	50	--	ps
Tracking Error	TE	-20°C~85°C	-1.5	--	+1.5	dB

ej 0 Y3' 270nm,1330nm



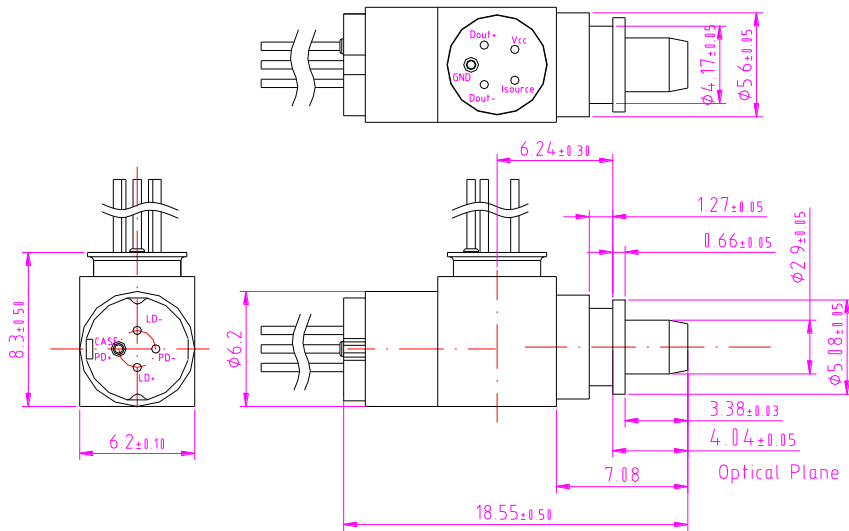
### Receiver Optical/Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Operating Voltage	Vcc	--	3.0	3.3	3.6	V
Supply current	Icc	Vcc=3.3V	--	--	35	mA
Operating Wavelength	Y	--	-10	Y	10	nm
RSSI Offset Current	Id	Vcc=3.3V	--	--	100	nA
Sensitivity	Sen	10.3125Gbps,PRBS31,	--	--	-15	dBm
Overload	OL	ER=6dB,BER=1E-12	0	--	--	dBm

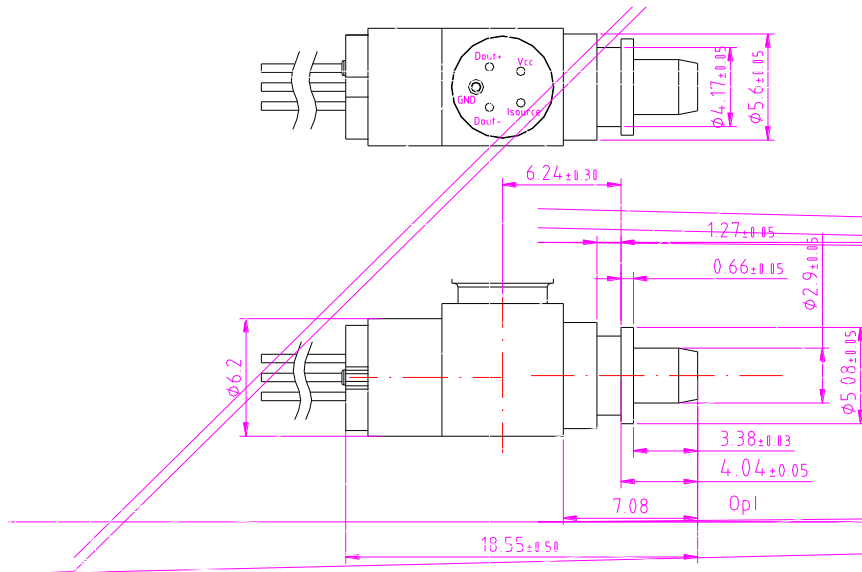
ej 0 Y3' (- dc ') dc

### Outline Dimension and PIN Definitions

#### TYPE-A

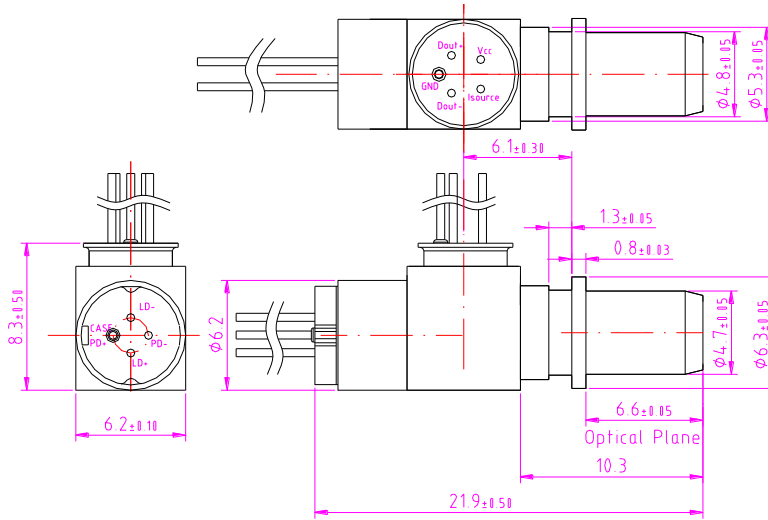


#### TYPE - B

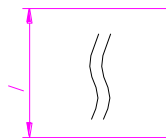




TYPE - C



TYPE - D



Order Information:

BOSA —  — 10Gbps —  —  —

Receptacle
LC
SC

TX Central Wavelength
1270 DFB
1330 DFB

RX Central Wavelength
1270nm
1330nm

Outline Dimension
A:TYPE A
B:TYPE B
C:TYPE C
D:TYPE D



**Statement:**

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