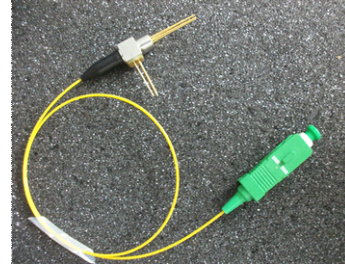


## T1550DFB/R1490nm 1.25G Pigtail BOSA (Built-in Isolator)

### FB-C44F3ASx-00

**Features:**

High stability DFB laser chip  
InGaAs/InP PIN detector with TIA  
Built-in isolator  
Operate temperature from -40°C to +85°C  
SC&FC&LC pigtail connector



**Specification:**

**Absolute Maximum Ratings**

Parameter	Symbol	Condition	Min	Max	Unit
Operating Case Temperature	T <sub>c</sub>	--	-40	85	°C
Storage Temperature	T <sub>stg</sub>	--	-40	85	°C
Lead solder Temperature	--	--		260	°C
Lead Soldering Time	--	--		10	s

**Optical/Electrical Characteristics (T=25°C, unless otherwise stated)**

**1550nm DFB Laser Transmitter**

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical Output Power	P <sub>o</sub>	1.0	--	3.0	mW	CW, I <sub>op</sub> =30mA
Threshold Current	I <sub>th</sub>	--	10	15	mA	T=25 °C
Forward Voltage	V <sub>F</sub>	--	1.1	1.6	V	
Operating Current	I <sub>op</sub>	--	30	40	mA	CW, T=25 °C
Center Wavelength	λ <sub>c</sub>	1530	1550	1570	nm	CW, T=25 °C
Spectral Width (-20 dB)	Δλ	--	0.1	1.0	nm	
Wavelength temperature coefficient	Δλ/ΔT		0.08	0.12	nm/°C	
Side-Mode Suppression Ratio	SMSR	35	40		dB	I <sub>op</sub> =30mA
Isolator		35			dB	
Relaxation Oscillation Frequency	f <sub>R</sub>	--	4.5	--	GHZ	I <sub>op</sub> =30mA
Rise/Fall Times	t <sub>R</sub> , t <sub>F</sub>	--	--	0.1	ns	20% to 80%
Monitor Current	I <sub>mon</sub>	100	--	1000	μA	V <sub>R</sub> =5 V,
Monitor Dark Current	I <sub>D</sub>	--	--	200	nA	V <sub>R</sub> =5 V

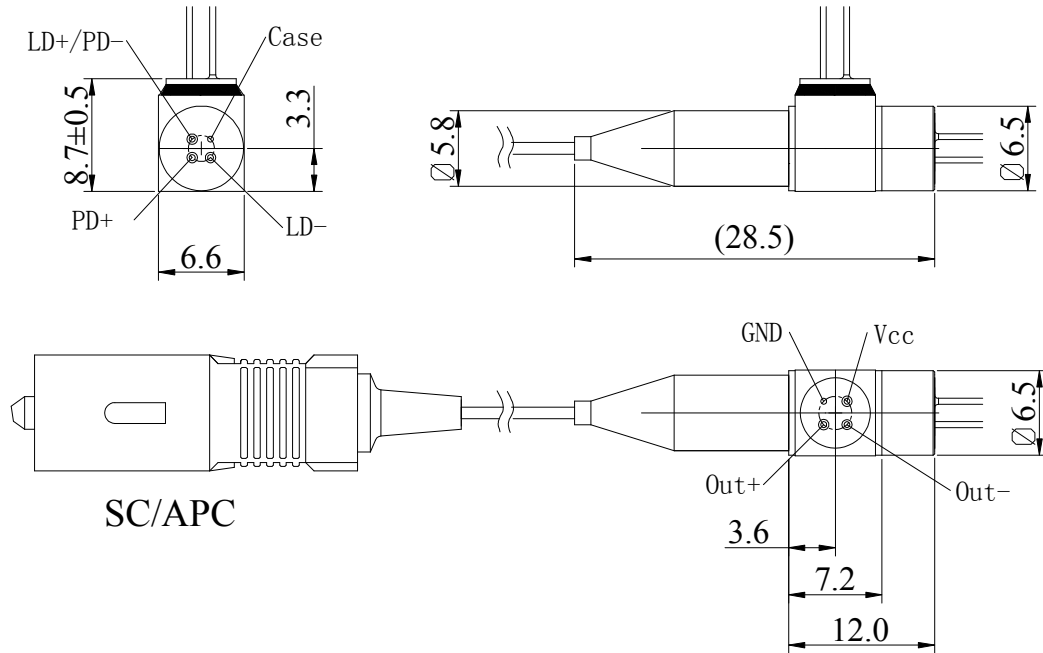
**1490nm 1.25Gbps Receiver**

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Supply Voltage	VCC	3.0	3.3	3.6	V	
Supply Current	ICC	-	30	40	mA	No loads
Differential responsivity	R <sub>d</sub>	9.6	--	32	mV/uW	R <sub>load</sub> =100 Ω, λ=1490nm, P= -24dBm
Single ended responsivity	R <sub>s</sub>	4.8	--	16	mV/uW	R <sub>load</sub> =50 Ω, λ=1490nm, P= -24dBm
Small-Signal Bandwidth	Bw	700	-	-	MHZ	λ = 1490 nm, P <sub>f</sub> =10uW
Low-Frequency Cut off	LF	--	--	115	KHZ	
Rise /Fall Time(20%~80%)	Tr/f		300	400	ps	λ = 1490 nm, P= -24dBm

**江苏飞格光电有限公司**  
**JIANGSU FIBER GRID CO., LTD**

Saturation Power	Psat	0			dBm	$\lambda=1490\text{nm}$
Wavelength	$\lambda$	1450	1490	1510	nm	
Single ended output impedance	Ro	35	50	65	ohm	
Sensitivity		--	--	-24	dBm	$\lambda = 1490 \text{ nm}$ , 1.25Gbps, PRBS7, ER=10dB, BER=1E-10

**Dimensions And Package Outline**  
**(SC/APC Pigtail Connector)**



**Order information**

FB-C44F3ASx-00

- Optical Connector: 1--SC/PC Pigtail  
2-- SC/APC Pigtail  
3--FC/PC Pigtail  
4--FC/APC Pigtail  
7--LC/PC Pigtail  
8--LC/APC Pigtail