

**BU-GU3448-20C**

2.5G SC/UPC BOSA T13DFB/R14 GPON

**General Specification**

- 1310nm DFB LD
- InGaAs PIN- TIA Receiver With a1490nm WDM Filter
- Bitrate: 2.5Gb/s
- Connector Type: SC/UPC Pigtail
- High Sensitivity
- Operation Temperature From -5°C to +75°C
- Optical Isolation>30dB,Cross Talk<-40dB
- RoHS compliant Products Available

**Absolute Maximum Ratings**

**Table 1: Absolute Maximum Ratings**

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	T <sub>STG</sub>	-40	+85	°C
Operating Temperature (ambient)	T <sub>OPR</sub>	-5	+75	°C
Supply Voltage	V <sub>CC</sub>		5	V
Lead Soldering Temperature (Max10 sec)	T <sub>S</sub>	---	260	°C
Forward Current (LD)	I <sub>FLD</sub>	---	150	mA
Reverse Voltage (LD)	V <sub>RLD</sub>	---	2	V
Forward Current (MPD)	I <sub>FMPD</sub>	---	2	mA
Reverse Voltage (MPD)	V <sub>RMPD</sub>	---	20	V
Forward Current (PD)	I <sub>FDP</sub>	---	2	mA
Reverse Voltage (PD)	V <sub>RDP</sub>	---	20	V
LD To-canPull Force		30		Kgf
PD To-canPull Force		15		Kgf

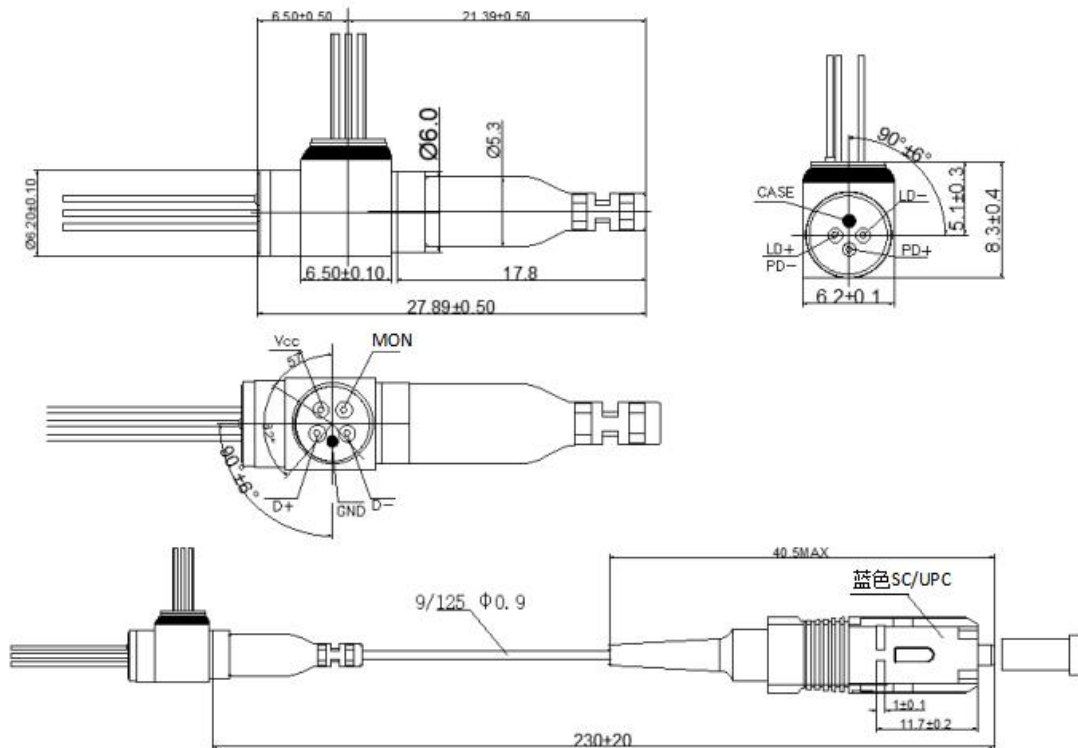
## Electric and Optical Characteristics

Test Condition:  $\lambda_c=CW$ ,  $V_{CC}=+2.97V\sim+3.63V$ ,  $T_c= -5\sim+75^\circ C$ , unless otherwise noted

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
<b>Transmitter</b>						
Threshold Current	$I_{TH}$	3	---	15	mA	$T_c=25^\circ C$
		---	---	40		$T_c= -5\sim+75^\circ C$ ,
Forward Voltage	$V_F$	---	---	1.6	V	$P_F=P_F$ (Min), $T_c=25^\circ C$
Optical Output power	$P_f$	0.6	---	1.2	mW	CW, @Ith+20mA, $25^\circ C$
Center Wavelength	$\lambda_c$	1290	---	1330	nm	CW, $T_c=-5\sim75^\circ C$
Spectral Width (-20dB)	$\Delta\lambda$	---	---	1	nm	CW, @Ith+20mA, $T_c=-5\sim75^\circ C$
Side-mode suppression ratio	SMSR	30	---	---	dB	$T_c=-5\sim75^\circ C$
Rise/Fall Time	$T_R/T_F$	---	---	260	ps	$P_F=0.6mW$ , Extinction Ratio > 10dB, 20%-80%, without filter
Monitor Current	$I_m$	100	---	1000	uA	CW, @Ith+20mA, $V_{RMPD}=1.5V$ , $T_c=25^\circ C$ ,
Tracking Error	$\Delta P_f/P_f$	-1.5	---	+1.5	dB	$-5\sim+75^\circ C$ , CW, $P_f$ (Ith+20mA)@Im hold
<b>Receiver</b>						
Supply Voltage	$V_{CC}$	2.97	3.3	3.6	V	
Supply Current	$I_{cc}$	---	39	45	mA	No Load
Optical Wavelength	$\lambda$	1470	1490	1510	nm	
Sensitivity	Sens	---	---	-29	dBm	2.5Gbps, RBS2 <sup>23</sup> -1 BER=10 <sup>-10</sup> , ER=9dB
Saturation Power	$P_{sat}$	-3	---	---	dBm	
Output Resistance	$R_{OUT}$	25	---	60	$\Omega$	Single Ended
Upper -3dB Bandwidth	BW	---	1.4	---	GHz	
Dark current of RSSI	$I_d$			200	nA	$V_{PD}=3.3V$ $T_c=-5\sim+75^\circ C$
Optical Crosstalk	$X_{TALK}$	---	---	-40	dB	1310nm/1490nm
ESD Requirement	ESD	500	---	---	V	

## Mechanical& Pin description requirement

Unit:mm



Package dimension and pin assignment

## For More Information

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