

Analog BOSA



Feature

- 1270nm/1330nm DFB laser diode and APD chip
- Low threshold current and 6G bandwidth.
- High intensity of light emission
- High coupling efficiency and Fiber output high power
- Very good Linearity

Application

- Analog transmission system and 6G RF transceiver
- High speed and Big data processing
- All Network

Absolute Maximum Ratings

Parameter		Min.	Max.	Unit
Tx	Power Voltage (LD)	--	3.6	V
	Reverse Voltage (LD)	--	2	V
	Forward Current (LD)	--	120	mA
	Reverse Voltage (MPD)	--	20	V
	Forward Current (MPD)	--	2	mA
Rx	Reverse Voltage	--	15	V
	Forward Current (LD)	--	10	mA
	Input Power	--	5	dBm

Threshold Voltage	200	--	V
Storage Temperature	-40	+85	°C
Operating Temperature	0	+75	°C
Lead Soldering Temperature	--	260/10	°C/s

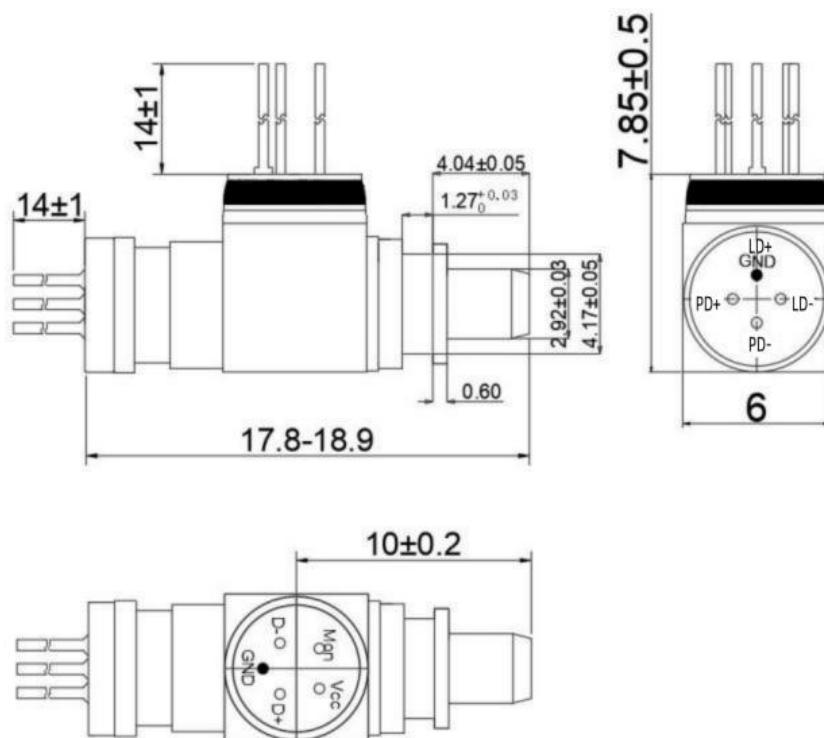
Optical and Electrical Characteristics

Parameter	Symbol	SPEC.				Test Conditions
		Min.	Typ.	Max.	Unit	
Central Wavelength	λ_c	1260	1270	1280	nm	I _{op} =50~60mA
	λ_c	1320	1330	1340	nm	I _{op} =50~60mA
Fiber Output Power	P _f	6.0	--	10.0	mW	I _{op} = I _{th} + 20mA, CW,
Threshold Current	I _{th}	5	--	15	mA	T _c =25°C
		1	--	40	mA	T _c =0~+75°C
Spectral Width (-20dB)	$\Delta\lambda$	--	--	1	nm	I _{op} =I _{TH} +20mA, T _c =25°C
Slope Efficiency	η	0.2	--	--	W/A	
Side-mode suppression ratio	SMSR	30	--	--	dB	I _{op} =I _{TH} +20mA, T _c =25°C
Monitor Current	I _m	50	--	1000	μA	T _c =0~+75°C
Monitor Dark Current	I _d	--	--	200	nA	T _c =0~+75°C
RF Parameter						
Bandwidth (3dB)	BW	0.01	--	7	GHz	
Input P-1dB	--	15	--	--	V	5GHz
2nd Harmonic Rejection	--	40	--	--	dBc	P _{in} =0dBm,100MHz~4GHz
		30	--	--	dBc	P _{in} =0dBm,4GHz~6GHz
Working Condition						
Power Voltage	--	3.135	--	3.465	V	
Operating Current	I _{op}	--	--	80	mA	
Operating Voltage	V _{cc}	--	--	1.6	V	

Electrical and optical characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	TEST CONDITIONS
Power Supply	V _{cc}	4.750	--	5.250	V	
Operating Wavelength	λ	1320	1330	1340	nm	
		1260	1270	1280	nm	
Responsivity	Re	0.8	--	--	mA/mW	
APD dark current	I _d	--	--	300	nA	
Breakdown voltage	V _{BR}	20	--	43	V	Dark current, I _d =10 μ A
Bandwidth (3dB down)	BW	0.01	--	7	GHz	
Overload	Ps	6	--	---	dBm	
Return Loss	RL	--	--	35	dB	
2nd Harmonic Rejection	--	38	--	--	dBc	100MHz~1GHz,Input=2dBm
3rd Harmonic Rejection	--	53	--	--	dBc	100MHz~1GHz,Input=2dBm
ESD Requirement	ESD	200	--	--	V	

Package Dimensions and Pin Description(LC)



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