

Product Specification

Product	10Gbps 1330nm DFB/LD
Model	XTD-506C-4309A
File No.	XTD-506C-4309A-#602003
Version	1.0
Issuing Time	May 2019



Specification Revision Record					
Date	Version	Page	Revision Description	Prepare	Approve

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10Gbps 1330nm DFB/LD

FEATURES

- Data rate up to 10Gbps
- 1330nm typical emission wavelength
- Good high temperature characteristics
- TO56 package with a $\Phi 1.5\text{mm}$ ball lens
- Uncooled DFB/LD chips with MQW structure



APPLICATIONS

- Data communications
- Access, Ethernet, Fiber Channel
- Other optical transmission system

Absolute Maximum Ratings

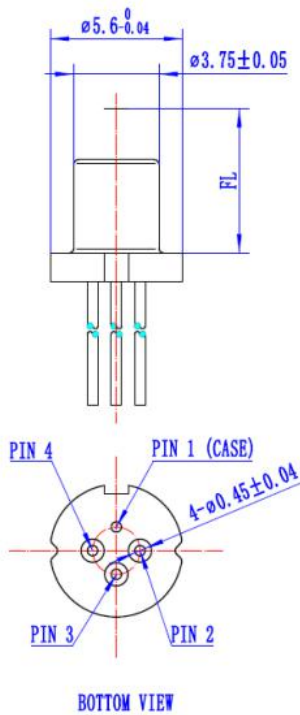
Parameters	Symbol	Min	Max	Unit
Forward Current	If	-	120	mA
Optical Output Power	PO	-	20	mW
Reverse Voltage	Vr	-	2	V
Operation Temperature	TO	-20	85	°C
Storage Temperature	TSTG	-40	100	°C

Electrical/Optical Characteristics (T=25°C)

Parameters	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Threshold Current	Ith	25°C		9	12	mA
		85°C		25	40	
Optical Output Power	PO	Ith+20mA	7	9		mW
Slope Efficiency	SE	Ith+20mA	0.35	0.45		W/A
Resistance	R	Ith+20mA		6	10	Ω
Center Wavelength	λ	CW, Ith+20mA	1320	1330	1340	nm
Side mode Suppression Ratio	SMSR	CW, Ith+20mA	30	40		dB
Operating Voltage	Vop	Ith+20mA		1.2	1.5	V
Rise/Fall Time	Tr/Tf	Ith+20mA, 20%~80%		50	60	ps
Monitor Photocurrent	Im	Ith+20mA	0.1		1.0	mA
Distance between Reference Plane to Fiber	FL	CW, PC fiber coupling	7.3	7.5	7.7	mm
Dark current (MPD)	Id	Vr=2.0V			100	nA
Capacitance (Photo-diode)	C	Vr=5V @ 1MHz			10	pF

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Outline Drawings & Pin Connection Type



PIN Number	Function
1	GND/Photodiode Anode
2	Laser Diode Cathode
3	Photodiode Cathode
4	Laser Diode Anode

Precautions

- Soldering irons, workbenches assembly and other tools and fixtures should be grounded to the discharge static electricity. Workers should wear anti-static clothes and be grounded via a wristband with high resistance ($\sim 10k\Omega$) for safety.
- The soldering conditions for each pin: temperature :< 360°C, Time :< 5 seconds.
- In order to prevent contact failure or short-circuit, please make sure correct connection of peripheral circuit when soldering. Otherwise, breakdown by overheat or burning may occur.
- Please make sure power off when you touch this product connected to the printed circuit boards. Otherwise, electric shock or burning may occur.
- Use the product with the rated voltage described in the specifications. If the voltage exceeds the maximum rating, overheating or burning may occur.