

## 1310nm FP 14pin DIP Laser

### *LDM3S86 Series*

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### Features

- *Analog bandwidth 800MHz*
- *High-reliability FP LD*
- *Operating wavelength 1310 nm*
- *Uncooled 14-pin DIP package, single mode FC/PC connector*

### Application

- *For trunk communication, meters and apparatuses, fiber repeater in mobile communication*

### Description

This cost-effective device is appropriate for low-demanding applications. It is packaged in a dual-in-line package (DIP), with the single mode fiber directly coupled to the LD chip.

## Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max	
Storage Temperature Range	Ts	°C	-40	+85	
Relative Humidity	RH	%	-	85	
Laser chip	Forward current	IFL	mA	-	100
	Reverse current	IRL	mA	-	2
	Reverse voltage	VRL	V	-	2
Monitor detector	Reverse voltage	VRD	V	-	15
	Reverse photocurrent	IRD	mA	-	1
	Forward current	IFD	mA	-	2
Lead Solder Temperature	-	°C	-	260	
Lead Soldering Time	-	S	-	10	
Fiber yield strength		kgf	-	1	
Fiber bend radius		mm	30	-	

## Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Max
Case Operating Temperature Range	Tc	°C	10	45
Power supply Voltage	Vcc	V	-	5
Relative Humidity	RH	%	-	80
Bias current	Ib	mA	-	50
Modulation current	Im	mA	-	40

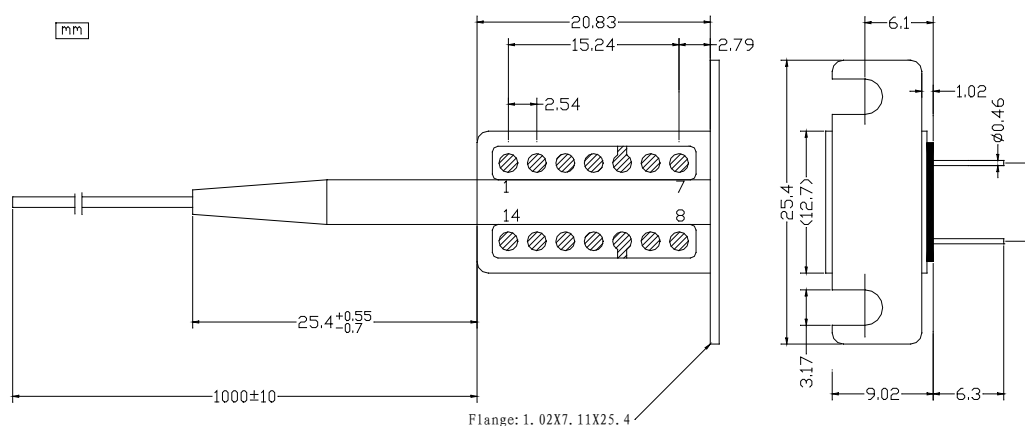
## Specifications (tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Unit	Min	Type	Max	Test condition
<b>Electrical Characteristics</b>						
Operating Voltage	Vop	V	-		1.8	CW
Threshold Current	Ith	mA	-	20	30	CW
Modulation current	Im	mA	10	20	40	If = Ith + 20mA
Rise/Fall Time	Tr/f	ns	-	0.3	0.5	Ib = Ith; 20% ~ 80%
Analog bandwidth	-	MHz	-	800	-	-3dB
Monitor Current	Im	μA	80	-	-	CW
<b>Optical Characteristics</b>						
Optical Output Power	Po	mW	0.1	-	2.0	CW
Central Wavelength	λc	nm	1290	-	1330	CW
Spectral Width	Δλ	nm	-	-	3	CW, RMS
Tracking Error	ΔPf	dB	-	-	1	CW, 25-60°C Im = Im@25°C
Series resistance	-	Ω	-	10	-	CW

## Pin Description

Pin	Description	Pin	Description	Bottom View
5	Case ground	9	LD (N)	See "Package Outline "
7	Detector (N)	10	LD (P) Case ground	
8	Detector (P)	Others	NC	

## Package Outline



## Ordering Information

Part No.	Specification				
	Package	Data rate	Laser	Optical Power	Temp
LDM3S861	14-pin DIP uncooled	800MHz	1310nm FP	0.1mW	10~45°C
LDM3S862	14-pin DIP uncooled	800MHz	1310nm FP	0.5mW	10~45°C
LDM3S863	14-pin DIP uncooled	800MHz	1310nm FP	1.0mW	10~45°C
LDM3S864	14-pin DIP uncooled	800MHz	1310nm FP	2.0mW	10~45°C

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Edition 2009-12-01

Published by Wuhan Telecommunication Devices Co.,Ltd.

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