



## 2.5G 850nm VCSEL LD TO-CAN Series

### Features:

- Data rates up to 2.5 Gb/s
- 850nm multimode emission
- Low threshold and operation current

### Applications:

- Digital Optical Communication

### Specifications:

#### Absolute Maximum Ratings:

Parameter	Symbol	Min.	Max.	Unit
Reverse Voltage	$V_R$	—	5	V
Forward Current	$I_F$	—	12	mA
Optical Output Power	$P_{out}$	—	2.2	mW
MPD reverse voltage	$V_r$	20	—	V
MPD forward current	$I_f$	—	10	mA
Operating Temperature	$T_{op}$	-5	+70	°C
Storage Temperature	$T_{stg}$	-40	+85	°C
Lead Solder Temperature	—	—	260	°C
Lead Solder Time	—	—	10	s

#### Characteristics: ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	$I_{th}$	$T=25^\circ\text{C}$	0.5	1.0	1.4	mA
Optical Output Power	$P_{out}$	$I_{op} = 6.0\text{mA}$	0.8	1.2	—	mW
Emission Wavelength	$\lambda$	$I_{op} = 6.0\text{mA}$	830	850	860	nm
Spectral Bandwidth, RMS	$\Delta\lambda$	$I_{op} = 6.0\text{mA}$	—	—	0.65	nm
Slope Efficiency	$\eta$	$I_{op} = 6.0\text{mA}$	0.17	0.23	—	W/A
Differential resistance	$R_d$	$I_{op} = 6.0\text{mA}$	—	50	—	$\Omega$
3dB modulation bandwidth	$V_{3dB}$	$I_{op} = 6.0\text{mA}$	3	—	—	GHz
Rise Time	$t_r$	$I_{op} = 6.0\text{mA},$	—	70	80	ps
Fall Time	$t_f$	20-80%	—	70	80	ps



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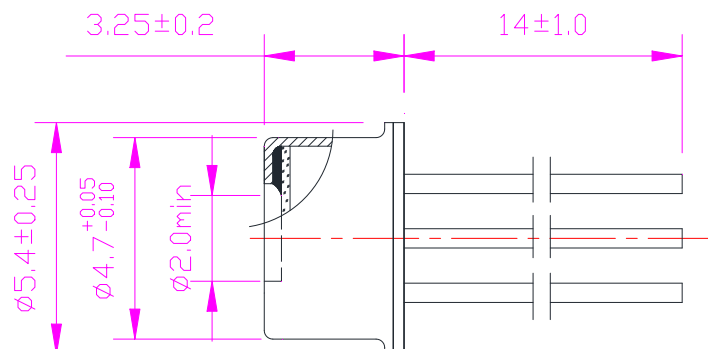
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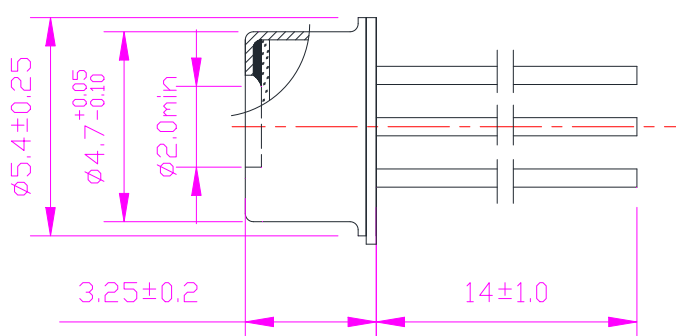
Monitor Current(MPD)	Im	Iop = 6.0mA, VR=3V	150	—	—	μA
Dark Current(MPD)	Id	Poc=0mW, VR=3V	—	—	20	nA

## Mechanical Dimension and Pin Assignment:

### LD 850nm VCSEL 2.5G-TO46-4pin-FW:



### LD 850nm VCSEL 2.5G-TO46-3pin-FW:



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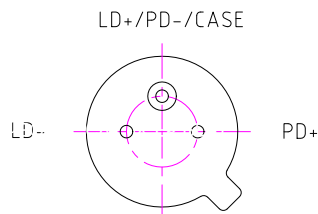
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Type F



BOTTOM VIEW

## Order Information:

LD 850nm VCSEL — — — —

## Statement:

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## Contact Information:

Address: N501-505 Weiye Bldg., Xiamen Pioneering Park For Overseas Chinese Scholars, Xiamen, Fujian, China

Tel: +86-592-3898601, 3898608, 5318000

Fax: +86-592-5703588

Email: [sales@san-u.com](mailto:sales@san-u.com)

<http://www.san-u.com>