



## 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	$I_{f1}$	—	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)

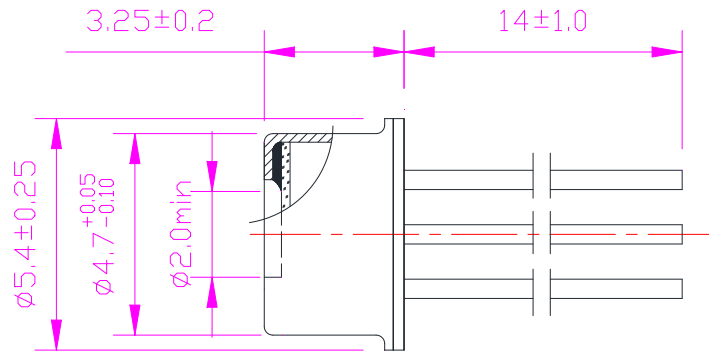
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	$I_{th}$	$T=25^\circ\text{C}$	0.5	1.0	1.4	mA
Optical Output Power	$P_{out}$	$I_{op} = 6.0\text{mA}$	0.8	1.2	—	mW
Emission Wavelength	$\lambda$	$I_{op} = 6.0\text{mA}$	830	850	860	nm
Spectral Bandwidth, RMS	$\Delta\lambda$	$I_{op} = 6.0\text{mA}$	—	—	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



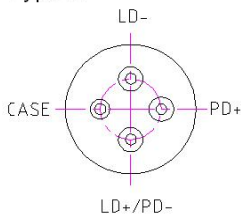
Monitor Current(MPD)	Im	Iop = 6.0mA, VR=3V	150	—	—	μA
Dark Current(MPD)	Id	Poc=0mW, VR=3V	—	—	20	nA

**Mechanical Dimension and Pin Assignment:**

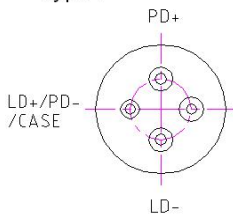
**LD 850nm VCSEL 2.5G-TO46-4pin-FW:**



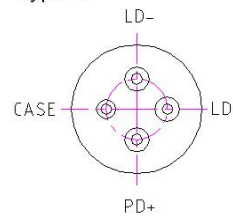
Type B



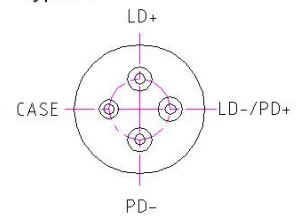
Type F



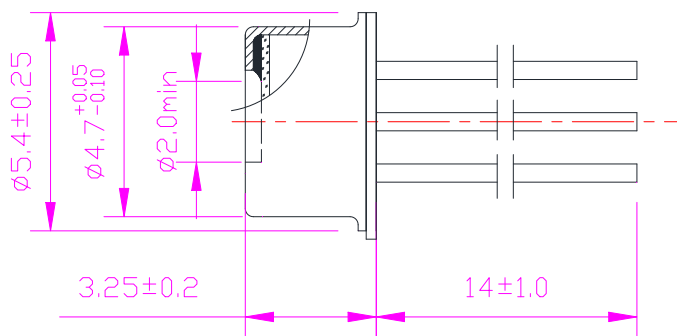
Type G



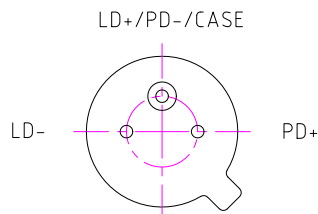
Type H



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



Type F



BOTTOM VIEW

### Order Information:

LD 850nm VCSEL —  —  —  —

<u>Data rates:</u> 2.5G	<u>Header Type:</u> TO46	<u>Numbers of Pin:</u> 4pin 3pin	<u>Pin Assignment</u> B: Type B F: Type F G: Type G H: Type H
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### Statement:

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