

Honeywell



Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

HFE4080-321 / XBA

VCSEL Connectorized, Data Communications, ST Connectorized TO-46, 400mW

Features

- Industry standard ST(r)-LP fiber connector
- Designed for drive currents between 5 mA and 15 mA
- Optimized for low dependence of electrical properties over temperature
- High speed > 1 Ghz

Description

The product is a high-performance 850 nm VCSEL intended for high-speed data communications. It combines many of the desirable features of an LED with the desirable features of a laser diode operating in a single longitudinal mode, but with multiple transverse modes reducing coherence and consequent modal noise in multimode fiber applications.

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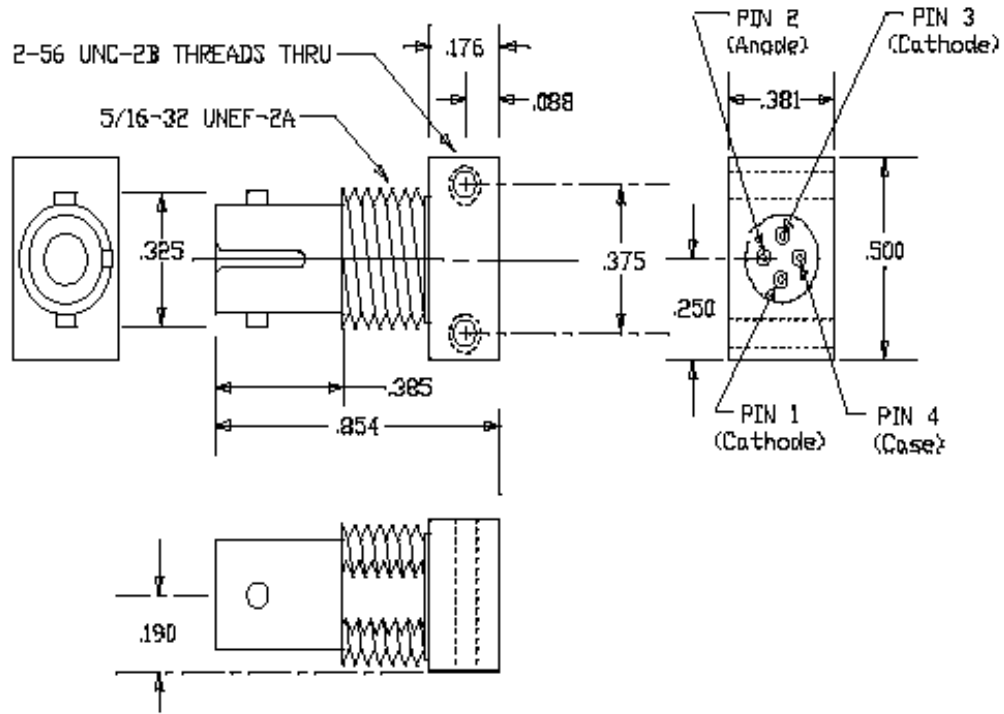
Product Specifications	
Product Type	VCSEL - Datacom
Speed	>= 1 GHz
Power Output	400 μ W
Package Type	TO-46 Header
Slope Efficiency	0.3 mW/mA
Back Monitor Diode	NO
Peak Operating Current	20 mA max.
Continuous Forward Current, Heat Sunked	15 mA max.
Forward Voltage	1.75 to 2.10 V
Output Wavelength	850 nm typ.
Wavelength Temperature Variation	0.06 nm/ $^{\circ}$ C
Rise and Fall Time	100 ps typ.
RMS Spectral Bandwidth	0.85 nm
Operating Temperature Range	0 $^{\circ}$ C to 70 $^{\circ}$ C (32 $^{\circ}$ F to 158 $^{\circ}$ F)
Threshold Current Temperature Variation	-1.5 to 1.5 mA
Threshold Current	1.5 to 6.0 mA
n Temperature Coefficient	0.05 nm/ $^{\circ}$ C
Laser Reverse Voltage	10 V
Series Resistance	25 Ohms typ.
Relative Intensity Noise	-128 dB/Hz typ.
Note 1	This product is tested with a 50/125 micron fiber
Note 2	Packaged components are limited by the electrical parasitics of the package

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OUTLINE DIMENSIONS in inches (mm)



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Fig. 1 Typical Power Output vs Forward Current

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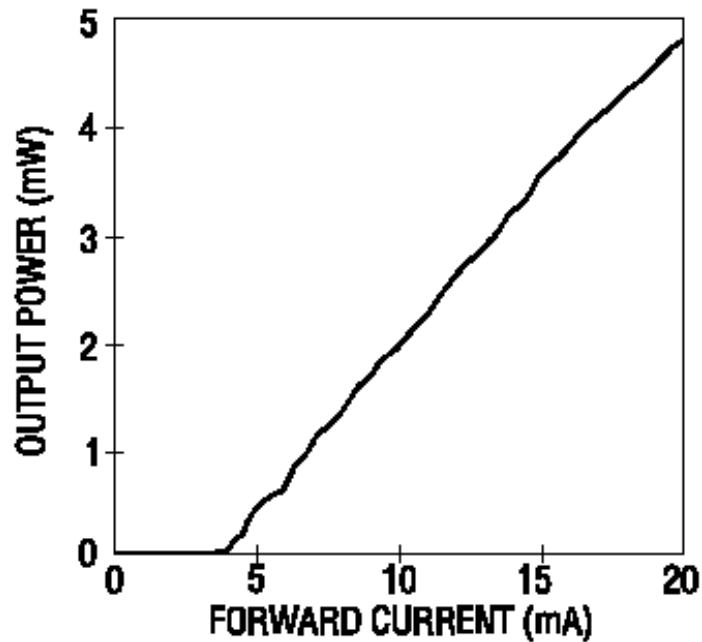


Fig. 2 Typical Threshold Current vs Temperature

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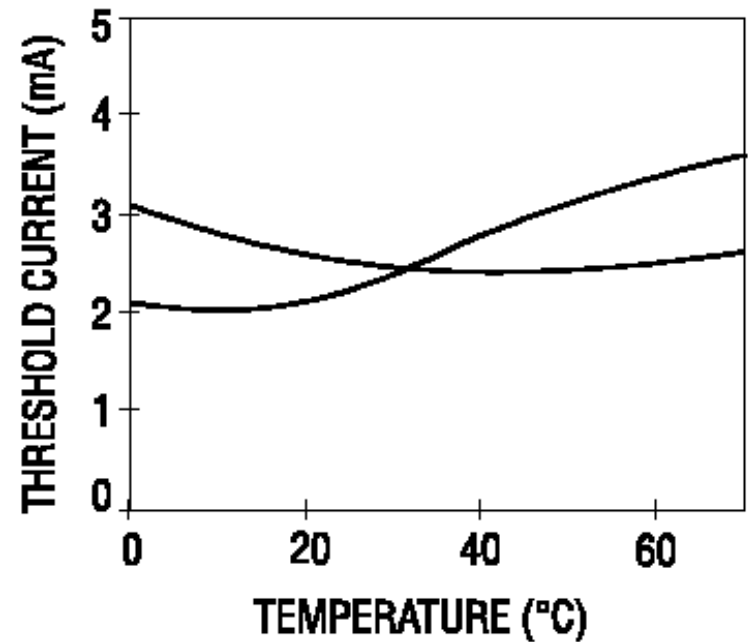


Fig. 3 Typical Spectral Output vs Wavelength

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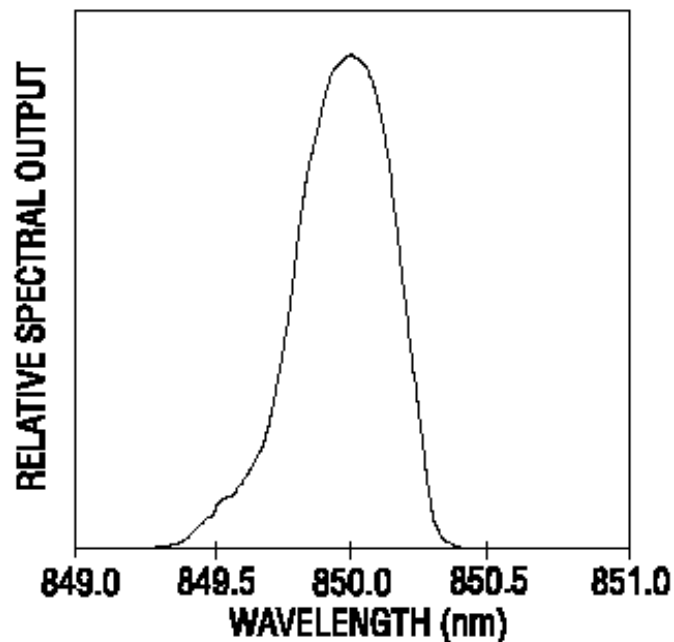
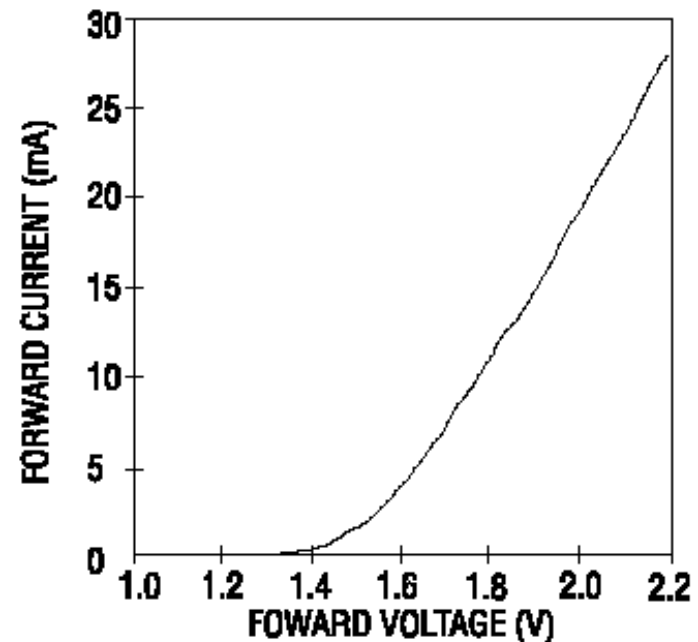


Fig. 4 Typical Current vs Forward Voltage

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 WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

 WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.