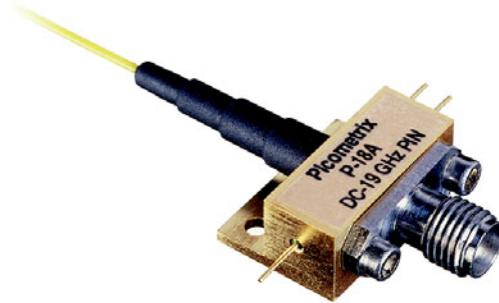


P-18A

Product Bulletin (Preliminary) • February 2002

- PIN detector module
- Flat frequency response, ± 1 dB
- High responsivity, 0.9 A/W
- High bandwidth, 19 GHz
- Low VSWR
- Compact 3-pin package



The **P-18A** is an ultrafast, InGaAs PIN photodetector that is ideal for use in O/E front-ends requiring flat frequency response. The back-illuminated photodiode design optimizes speed and sensitivity for the 1200 nm through 1650 nm wavelength range. The internal waveguide design assures a flat frequency response necessary for analog applications.

The detector is available in a compact 3-pin package with either a K output connector or an RF feed-through pin for direct soldering to circuit boards. Input via a single-mode fiber is standard. The hermetic module is Telcordia compliant.

Specifications

	Minimum	Typical	Maximum	Units
Wavelength range	1200		1650	nm
Bandwidth (+/- 1dB electrical)	18	19		GHz
Low frequency cutoff	DC			kHz
Responsivity @ 1310 nm	0.8	0.9		A/W
Responsivity @ 1550 nm	0.75	0.85		A/W
Output Return Loss (< 18 GHz)			-10	dB
Optical Return Loss			-37	dB
Output termination		50		Ω

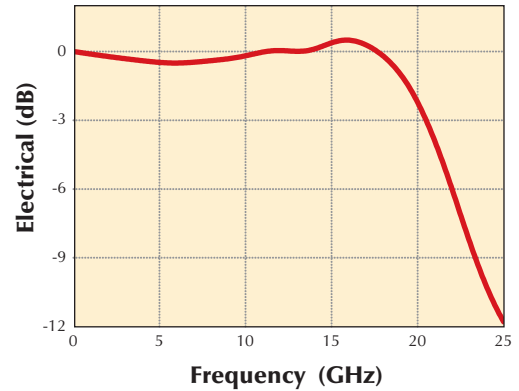
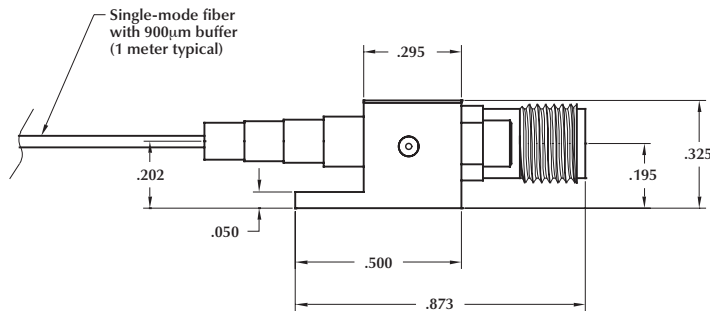
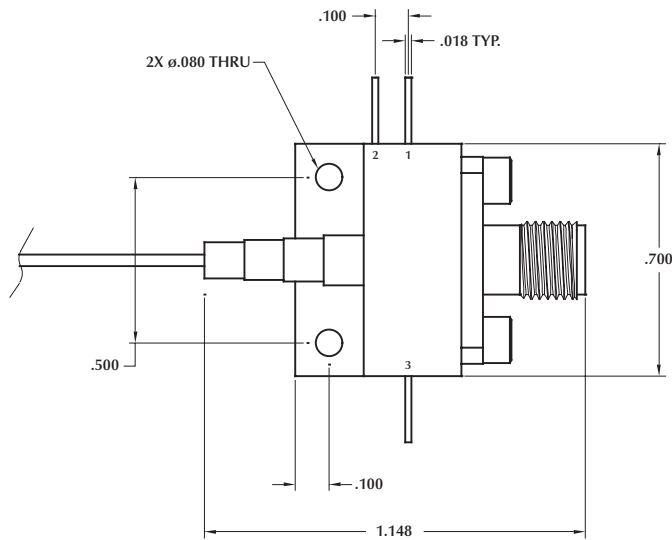
DC Electrical

Photodiode voltage	+8	+10	+15	V
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Mechanical

Package type	3-pin module with K connector			
Operating temperature	-40		+85	$^{\circ}\text{C}$
Storage temperature	-40		+85	$^{\circ}\text{C}$

Product Specifications



Pin Description

- 1 V_{PD}
- 2 GND
- 3 NC

P-18A Ordering Information

Base model	P-18A
Option format	/Package/Output termination/Fiber connector
Package options	3K or 3NC
Output termination option	Z50
Fiber connector options	FC or SC

Application Notes

Electrostatic discharge (ESD) will cause permanent damage to the product. Please avoid any ESD to the input pins or output connector. Use standard ESD protective equipment when handling this product.

Temperature and fiber restrictions are as follows:

Lead soldering: 250°C for no more than 10 seconds

Fiber feed-through tube: 120°C

Fiber pull force: 10 N

Fiber bending radius: 1 inch or less

Exceeding these conditions can cause permanent damage to the device.

Quality Vision

As a leader in ultrafast optical receivers, Picometrix is committed to providing the highest quality ultrafast products on the market. This quality vision commits us to continually improving our product designs and manufacturing processes, in order to ensure the highest level of customer satisfaction. The company maintains a stringent quality control program to ensure that all products meet or surpass customer requirements.



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PB-P-18A-0202-A