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# High Speed Receptacle Photodiodes

## Technical Data

### Features

- **Industry Standard FC Connector**
- **Low Dark Current**
- **High Reliability Planar InGaAs PIN Photodiode**
- **High Responsivity**

### Applications

- **Instrumentation**
- **O-E Converters**
- **Single and Multimode Fiber Communications Systems**
- **Data Communications Receivers**

### Description

The PDT0313-FC-A uses Hewlett-Packard's highly reliable top entry photodiode mounted in a high speed packaging environment to exploit the wide bandwidth performance of the PIN. The optical interface is by means of an FC connector housing. The electrical interface is through an SMA compatible connector. The receptacle includes a standard two hole panel mounting flange.

### PDT0313-FC-A

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## PDT0313-FC-A Specifications

### Absolute Maximum Ratings

Absolute maximum limits mean that no catastrophic damage will occur if the product is subjected to these ratings for short periods, provided each limiting parameter is in isolation and all other parameters have values within the performance specification. It should not be assumed that limiting values of more than one parameter can be applied to the product at the same time.

Parameter	Minimum	Maximum	Units
Reverse Voltage	-	15	V
Forward Voltage	-	0.5	V
Forward Current	-	5	mA
Optical Power	-	5	mW
Operating Temperature	-20	65	°C

The following are measured with a bias of +5 volt to the center conductor of the electrical connector with 9/125  $\mu\text{m}$  single mode fiber, and at 25°C, unless specified.

### Optical Specification

Parameter	Minimum	Maximum	Units
Responsivity @ 1300 nm	0.75	-	A/W
Responsivity @ 1550 nm	0.8	-	A/W
Operating Wavelength	1100	1650	nm
Optical Return Loss	22	-	dB

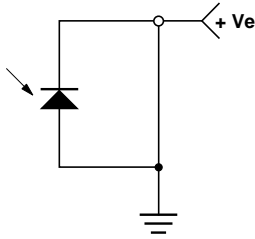
### Electrical Specification

Parameter	Minimum	Maximum	Units
Bandwidth (-3 dB, 50 $\Omega$ ) referred to 130 MHz	6	10	GHz
Ripple	-	$\pm 1.5$	dB
Dark Current	-	2	nA

### Patch Cord

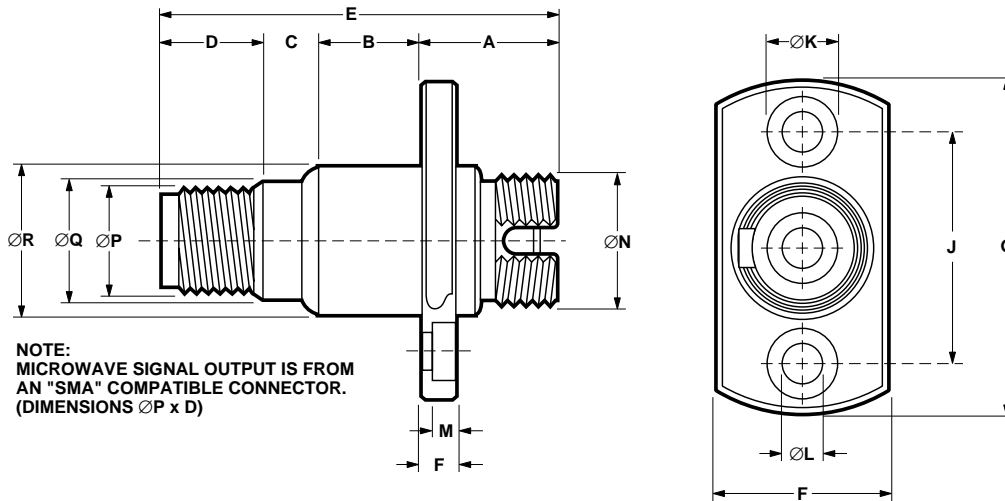
The product is supplied with a single mode patch cord, with one end coated to give >22 dB optical return loss.

# PDT0313



## Schematics

Product Code	Product Marking	Part Number
PDT0313	PDT0313	105082.002



DIM.	MIN.	MAX.	DIM.	MIN.	MAX.
A	7.72	8.28	J	13.25	13.65
B	6.20	6.50	ØK	3.74	4.26
C	2.85	6.20	ØL	1.98	2.42
D	5.80	6.20	M	1.28	1.72
E	23.50 NOM.		ØN	M8 x 0.75	
F	1.78	2.22	ØP	1/4-36 UNS-2A	
G	18.65	19.35	ØQ	6.85	7.10
H	8.92	9.48	ØR	8.80	9.10

ALL DIMENSIONS IN MILLIMETERS

## **Ordering Information**

Please order part number **PDT0313-FC-A**

## **Handling Precautions**

1. The PDT0313-FC-A can be damaged by current surges of overvoltage. Power supply transient precautions should be taken.
2. Normal handling precautions for electrostatic sensitive devices should be taken.