

DRP2EB-43T2
DRP2EC-43T2

PIN Photodetector for C - Band Amplifiers

Features

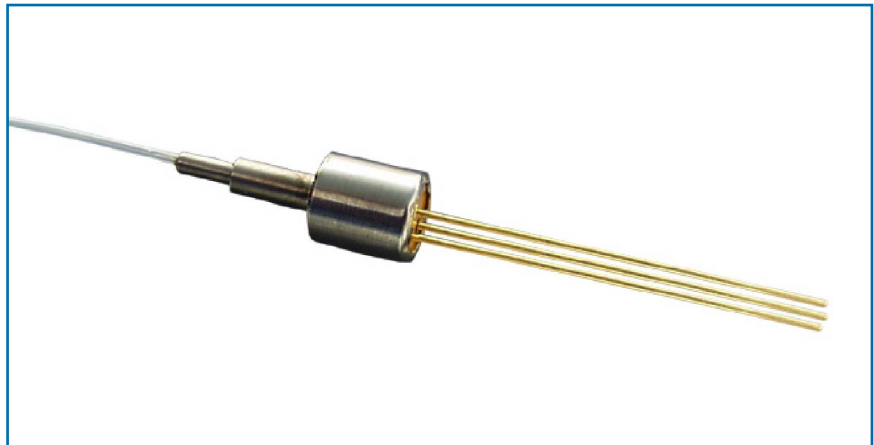
- Proven high reliability
- InGaAs Planar PIN Detector
- Dielectric passivated chip for low dark current
- Anti-reflection optical coating optimized for high responsivity
- Product designed for low back reflections and low polarization sensitivity of responsivity
- Hermetically sealed components
- Single-mode fiber, 245 μm nominal coating diameter, pigtailed package

Applications

- Optical amplifier power monitoring
- WDM Optical channel equalization

Description

This PIN photodetector has been specifically designed for use in the C-Band telecommunications window. It is ideally suited as a detector for the input and output taps in fiber amplifier applications and single-mode fiber optic networks where components with low optical reflections are of prime importance. It has a combination of high responsivity, low capacitance, and low dark current, together with a high optical return loss fiber pigtail. The optical component is hermetically sealed to ensure a reliable product and is actively aligned to the single-mode fiber pigtail.



Absolute Maximum Ratings

Parameter	Min	Max	Unit
Operating temperature	-40*	+80	°C
Storage temperature	-40	+85	°C
Radiant input power		5	dBm
Forward current		1	mA
Bias voltage		-20	V
Fiber bend radius	30		mm

* In a non-condensing atmosphere

Package Outline Drawing and Dimensions

Dimensions in mm.

Lower device drawing shows universal clamp fitted.

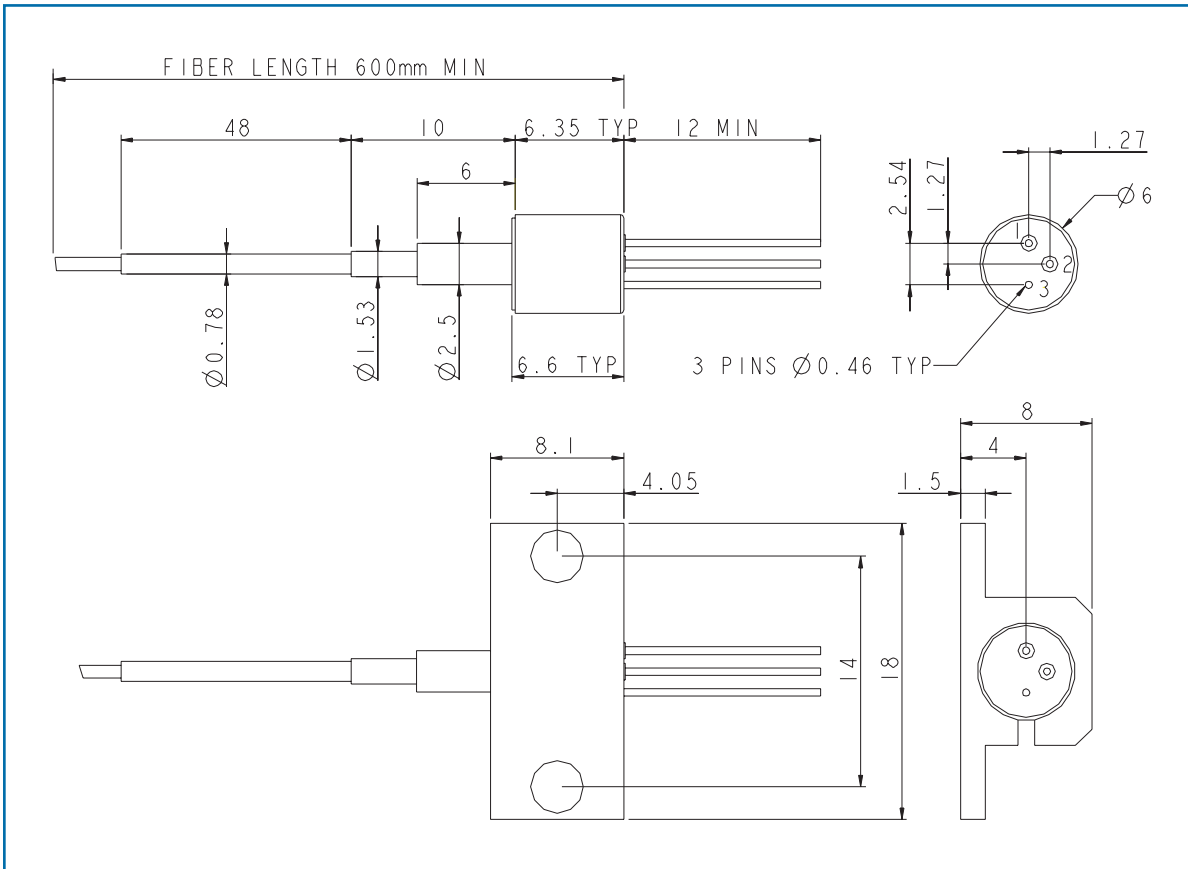


Figure 1: Package Outline Drawing and Dimensions

Connections

DRP2E* - 43T2 Pin 1 Detector anode
 Pin 2 Detector cathode
 Pin 3 Case

Characteristics

Case temperature: 25°C
 Bias voltage: 5.0 V
 Wavelength: 1520nm – 1570nm

ESD precautions apply for a Class 2 device as defined in Belcore TR-NWT-000870.

Parameter	Min	Typ	Max	Unit
Responsivity @ 1550 nm	0.80	0.95		A/W
Dark current		0.1	0.5	nA
Bandwidth (-3dB)	800	>1000		MHz
Capacitance at leads			1.3	pF
Optical return loss		-45	-30 -40	dB dB
Polarization dependence of responsivity (PDR)		0.03	0.1	dB
Linearity		0.5	3	%
Wavelength dependence of responsivity		0.05	0.15	dB
Temperature dependence of responsivity		0.05	0.15	dB

Reliability/Quality

Qualified to Telcordia GR-468-CORE.

Ordering Information

Please order either DRP2EB-43T2 (H) or DRP2EC-43T2 (H) depending on the Optical Return Loss required where H signifies universal clamp fitted.

A full range of connector options are available.



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