



InGaAs PIN pigtail Coaxial Detector

PDCS971-001

Features

- *For optical fiber communication systems below 3.0GHz, EDFA, WDM systems*
- *High responsivity InGaAs planar PIN detector*
- *Low capacitance, low dark current*
- *Operating wavelength 1100~1650 nm*
- *TO hermetic package, single mode fiber connector*
- *Operating temperature range: -40°C ~ +85°C*
- *Qualified to meet the intent of Telcordia reliability GR-468-CORE*

Application

- *EDFA*
- *WDM*

Description

The PDCS971-001 is high performance InGaAs PIN designed for EDFA monitoring, WDM and also for optical fiber communication systems. High performance InGaAs PIN provide high responsivity and wide range temperature. This products is pre-aligned and focused on optical monitoring..

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Case Operating Temperature Range	Tc	°C	-40	85
Storage Temperature Range	Ts	°C	-40	85
Relative Humidity	RH	%	5	95
Reverse Voltage	VR		-	15
Lead Solder Temperature	-	°C	-	260
Lead Soldering Time	-	s	-	10
Input optical power	Pin	dBm	-	10

Recommended Operating Conditions

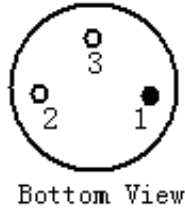
Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	Tc	°C	-40	25	85
Reverse Voltage	VR	V	-	5	10
Relative Humidity	RH	%	5	-	95
Input optical power	Pin	dBm	-	-	3

Specifications (T=25°C, BOL, unless otherwise noted)

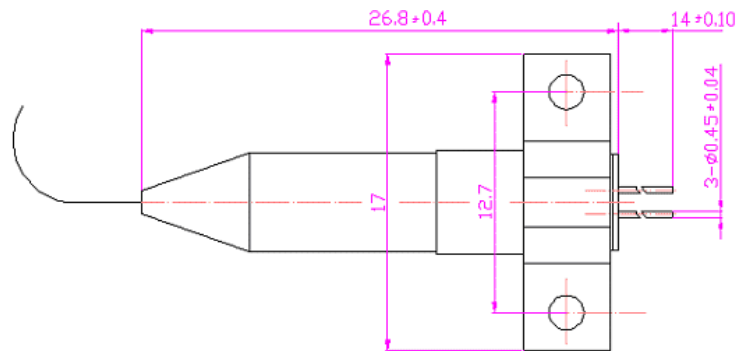
Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Operating Voltage	VR	V	-	5	-	
Detector dark current	Id	nA	-	-	1	VR=5V
Capacitance	C	pF	-	-	1.3	VR=5V
-3dB Bandwidth	BW	GHz	3	-		
Optical Characteristics						
Wavelength range	λ	nm	1100	-	1650	Pin=300uW
Responsivity	R	mA/mW	0.85	-	-	VR=5V
Return Loss	RL	dB	30	-	-	
PDL	PDL	dB	-	-	0.2	

Pin Description

Pin	Name	Description	Pin	Name	Description
1	GND	Ground connection	3	PD-	PD cathode
2	PD+	PD anode			



Package Dimensions (Unit: mm)



Regulatory Compliance

Feature	Test method	Performance
optical characteristics	technical criterion	meet the specifications
rating values	technical criterion	meet the specifications
repeatability	YD/T 895	10 times
mechanical shock	MIL-STD-883-2002	1500g,0.5ms,5times/axis
vibration	MIL-STD-883-2007	20g,20-2000Hz,4min/cycles,4cycles/axis
fiber pull	Bellcore GR-468-CORE	0.5Kg(note),3times,5sec
high temp. acceleration aging	Bellcore GR-468-CORE	85°C,5khrs.(after 2khs)
temperature cycling	Bellcore GR-468-CORE	-40°C~85°C,500 times
damp heat	MIL-STD-202	85°C,85%RH,1000hrs
low temp. storage	Bellcore GR-468-CORE	-40°C, >2000hrs
repeatability wearing	YD/T 895	500times
ESD threshold	MIL-STD-883-3015	>1000V

Note: Bare fiber

Ordering Information

Part No.	Specification					
	Package	Datarate	Detector	Responsivity	Temp	Others
PDCS971-001*	3pin Coaxial pigtail	3GHz	PIN	0.85A/W	-40~85°C	

*: The product marked with * is not available at present.

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