



Coaxial InGaAs PIN Photodiodes

PDCS983 Series

Features

- *High reliability and high responsivity planar structure InGaAs photo-detector*
- *Low capacitance, low return loss, low dark current*
- *Mini-Coaxial package (3 pin)*
- *250 μ m or 900 μ m diameter fiber pigtail is optional*
- *Single mode (PDCS983) or multi-mode (PDCM983) fiber*
- *It can be produced with a variety of industry standard connector or without a connector, and also available with horizontal type flange package*

Application

- *Optical fiber communication systems up to 3.0GHz*
- *Optical network monitoring*
- *EDFA and DWDM monitoring*

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	Ts	°C	-40	+85
Relative Humidity	RH	%	-	95
Reverse bias Voltage	Vcc	V	-	20
Diode Current	If	mA	-	10
Lead Soldering Temperature	-	°C	-	260
Lead Soldering Time	-	s	-	10
Input optical power	Pin	mW	-	3
Fiber yield strength	-	N	-	10
Fiber bend radius	-	mm	30	-

Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	Tc	°C	-40	25	+85
Power Supply Voltage	Vcc	V	-	-5	-

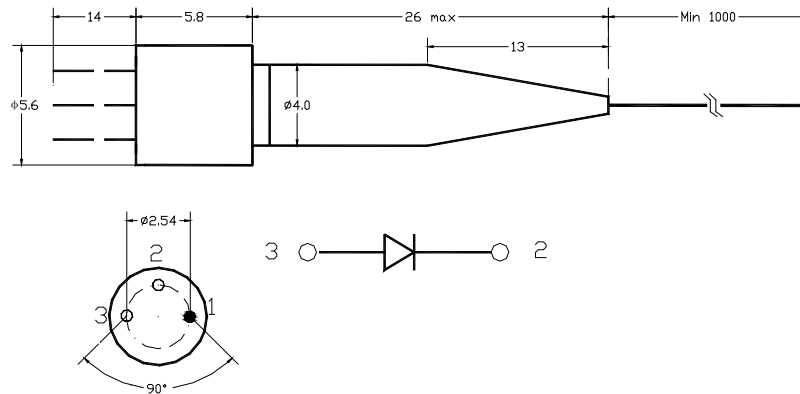
Specifications (T=25°C, BOL, VR=5V, unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Dark current	ID	nA	-	-	1	
Capacitance	C	pF	-	-	0.8	
-3dB Bandwidth	BW	GHz	-	3	-	50Ω load
Optical Characteristics						
Wavelength range	λ	nm	1100	-	1650	
Responsivity	R1310	A/W	0.80	-	-	λ = 1310
Responsivity	R1550	A/W	0.85	-	-	λ = 1550
Optical Return Loss	RL	dB	40	-	-	λ = 1310

Pin Description

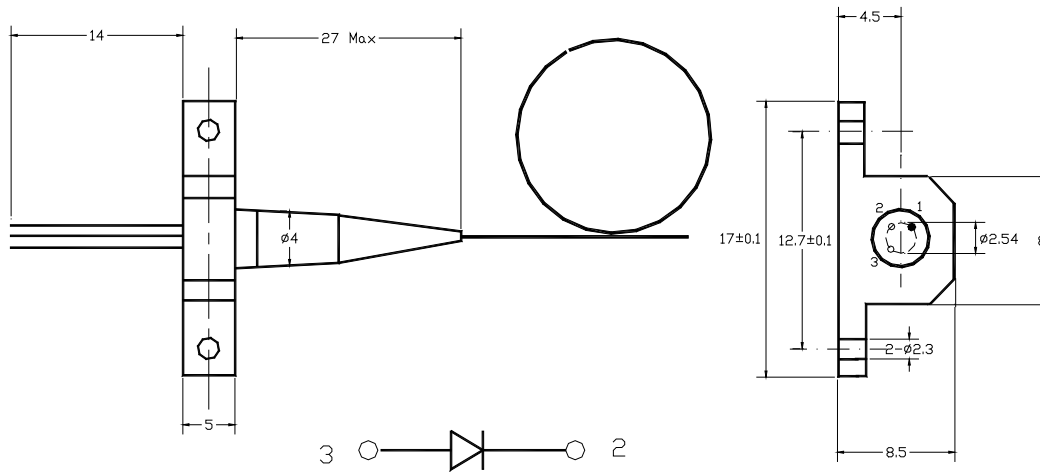
Pin	Description
1	GND
2	Cathode
3	Anode

Package Outline (PDCS983)



All dimension in mm

Flange type package (PDCS983-4)



All dimension in mm

Ordering Information

Part No.	Specification					
	Package	Bandwidth	Detector	Responsivity	Temp	Others
PDCS983	3pin coaxial pigtail	3GHz	PIN		-40~85°C	Single mode, without flange
PDCM983	3pin coaxial pigtail	3GHz	PIN	0.80 A/W (at 1310nm)	-40~85°C	Multi mode, without flange
PDCS983-3	3pin coaxial pigtail	3GHz	PIN	0.85A/W (at 1550nm)	-40~85°C	With flange, Type A
PDCS983-4	3pin coaxial pigtail	3GHz	PIN		-40~85°C	With flange Type B

Note: See "Pin Description" for Type A, Type B

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