



## FCPD-55-C9

- Pigtailed InGaAs PIN Photodiode
- $\varnothing$  55  $\mu\text{m}$  active area
- 0.85 – 1.7  $\mu\text{m}$  spectral range
- Coaxial package
- 9  $\mu\text{m}$  single mode fiber



### Description

**FCPD-55-C9** is an **InGaAs** PIN photodiode with an active area of  $\varnothing$  55  $\mu\text{m}$  in a pigtailed coaxial package with **9  $\mu\text{m}$  single mode fiber** and FC/PC connector. It features, a wide range of sensitivity from 850 nm to 1700 nm, high responsivity, low terminal capacitance, and low dark current. **FCPD-55-C9** is optionally available with different connectors, and receptacle package without fiber.

### Maximum Rating ( $T_{\text{CASE}} = 25^{\circ}\text{C}$ )

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	$V_R$		15	V
Forward Current	$I_F$		10	mA
Operating Temperature	$T_{\text{OPR}}$	- 40	+ 85	$^{\circ}\text{C}$
Storage Temperature	$T_{\text{STG}}$	- 40	+ 125	$^{\circ}\text{C}$
Soldering Temperature (max.10s)	$T_{\text{SOL}}$		+ 260	$^{\circ}\text{C}$



### Electro-Optical Characteristics ( $T_{\text{CASE}} = 23^{\circ}\text{C}$ )

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Spectral Range	$\lambda$		0.85		1.7	$\mu\text{m}$
Aperture Diameter	$\varnothing$			55		$\mu\text{m}$
Peak Sensitivity	$A_P$	$V_R=0\text{ V}$		1.55		$\mu\text{m}$
Dark Current	$I_D$	$V_R=5\text{ V}$		0.2	0.5	nA
Capacitance	$C_J$	$V_R=5\text{ V}$		0.5	1.0	pF
Responsivity	$S_\lambda$	1.31 $\mu\text{m}$	0.80	0.85		A/W
		1.55 $\mu\text{m}$	0.85	0.90		
Saturation Power	$P_S$	$V_R=5\text{ V}$		10		mW
Rise/Fall time	$t_r / t_f$	$V_R=5\text{ V}$			0.3	ns
Bandwidth		-3 dB		3.0		GHz
Reverse Breakdown Voltage		$I_R=10\text{ }\mu\text{A}$	45			V
Fiber Specification	Fiber Core			9		$\mu\text{m}$
	Fiber Length			80		
	Fiber Connector			FC/PC *		

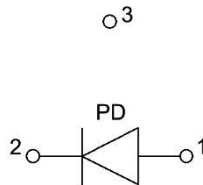
\* other options on request



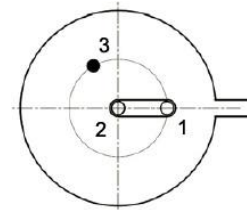
## Electrical Connection

### Pin Configuration\*

Pin #	Function
Pin 1	PD Anode
Pin 2	PD Cathode
Pin 3	Case

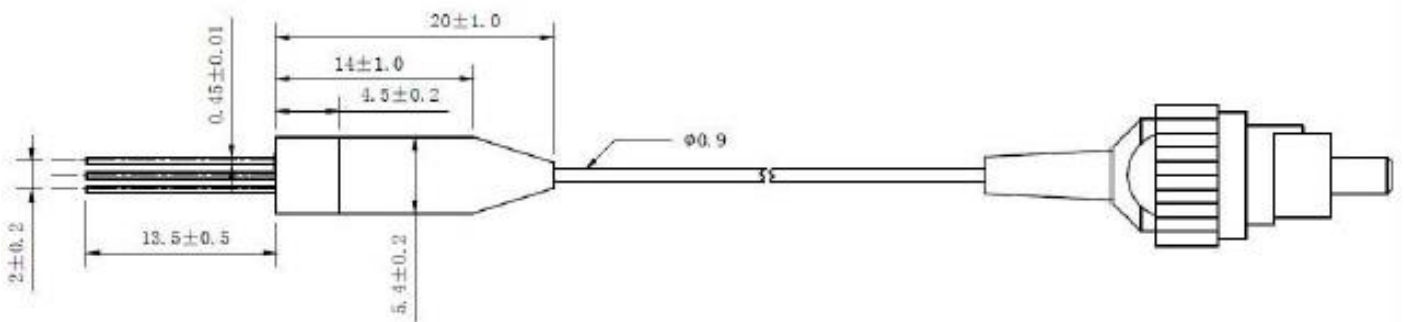


### Bottom View



\* subject to change

## Outline Dimensions



All dimensions in mm

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The above specifications are for reference purpose only and subjected to change without prior notice