

### Features

- InGaAs/InP PIN Photodiode
- High responsivity at 1310nm and 1550nm
- Low dark current
- Low intermodulation distortion
- High responsivity
- Hermetically sealed 3-pin metal case

### Packaging

- SM fiber pigtailed with optional FC/ST/SC connector

### Application

- Return path Analog CATV optical receivers to 2.5GHz
- RoHS Compliant available

### Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Value	Unit
Supply Reverse Voltage	V <sub>R</sub>	20	V
Forward Current	I <sub>F</sub>	2	mA
Reverse Current	I <sub>R</sub>	1	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ 85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ 100	°C

### (All optical data refer to coupled 9/125 μm SM fiber)

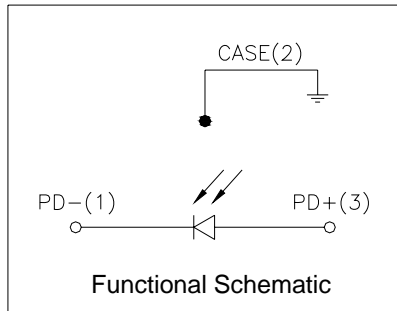
### Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Operating Voltage	V <sub>op</sub>	-	-	15	V	-
Detection Range		1100	1310	1650	nm	-
Responsivity	R	0.75 0.8	0.8 0.9	- -	A/W	V <sub>R</sub> = 5V, λ = 1310nm V <sub>R</sub> = 5V, λ = 1550nm
Linearity IMD2	IMD2	-	-70	-	dBc	Note 1
Dark Current	I <sub>dark</sub>	-	-	0.8	nA	V <sub>R</sub> = 5V
Capacitance	C <sub>t</sub>	-	-	0.35	pF	Note 2
Rise / Fall Time	T <sub>r</sub> / T <sub>f</sub>	-	-	0.125	ns	V <sub>R</sub> = 5V, 10%~90%
Bandwidth	BW	8	-	-	GHz	V <sub>R</sub> = 5V
Optical Return Loss	ORL	40	-	-	dB	λ = 1310nm

#### Note:

1. V<sub>R</sub>=12V, P<sub>AVG</sub>=0dBm, MI=0.7, R<sub>LOAD</sub>=50Ω, f<sub>1</sub>+f<sub>2</sub>=324.25MHz, f<sub>1</sub>-f<sub>2</sub>=54.25MHz
2. V<sub>R</sub>=5V, Case grounded

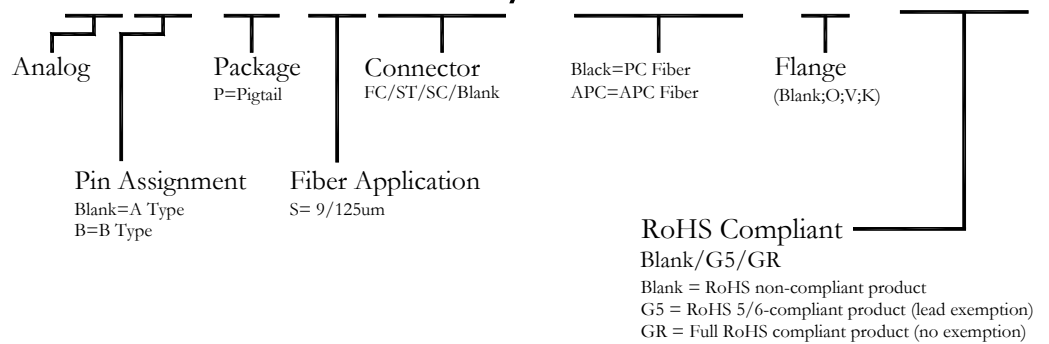
## Pin Assignment



Pin Assignment
1~PD(-)
2~CASE
3~PD(+)

## Ordering Information

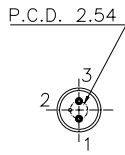
# R-11-040AX-P-SXX/XXX-X-XX



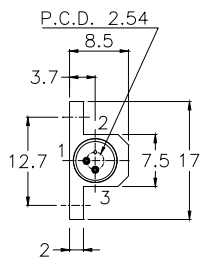
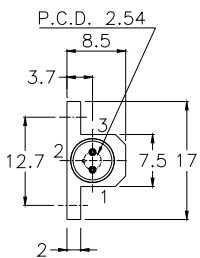
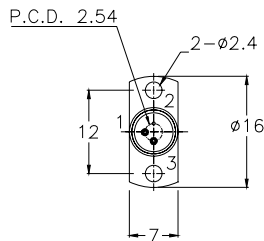
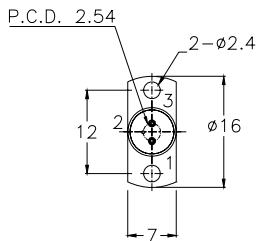
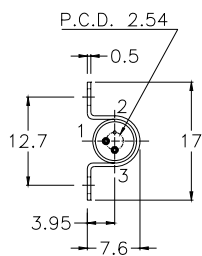
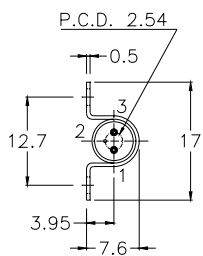
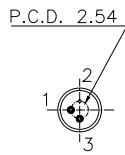
Mechanic Dimension (Units in mm)

Pin Assignment

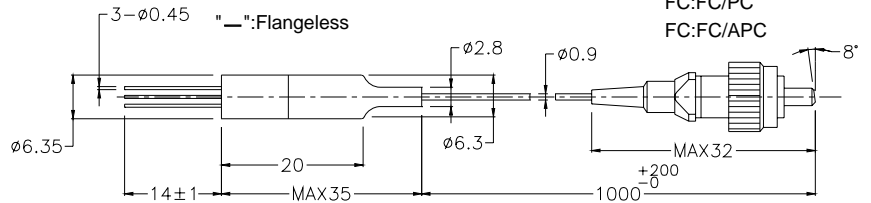
A Type



B Type



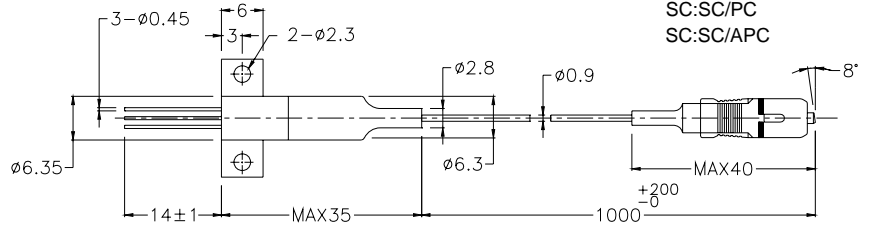
Flange Type



Connector Type

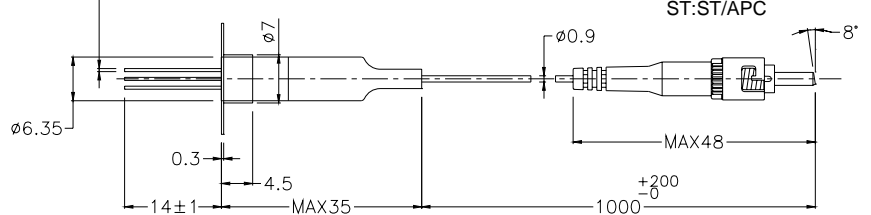
FC:FC/PC  
FC:FC/APC

"O":Horizontal (Omega Housing)



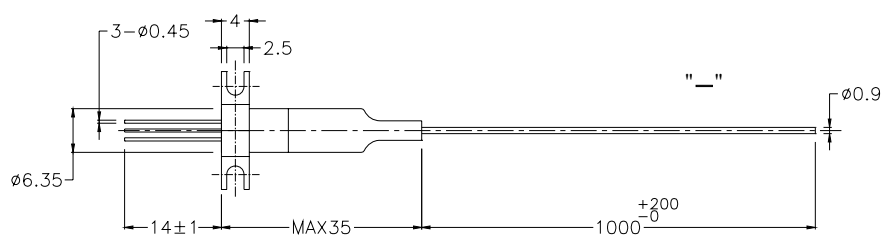
SC:SC/PC  
SC:SC/APC

"V":Vertical



ST:ST/PC  
ST:ST/APC

"K":Horizontal (KX Housing)



## Warnings

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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