



# 1.25Gbps Receptacle InGaAs/InP PIN Photodiode Receiver R13-RY1-1

Data Sheet



## Description

The Lasermate R13-RYZ-M series are InGaAs PIN photodiode receiver modules designed for operation in the 1100–1630 nm wavelength range. The R13-RYZ-M is available in a receptacle-style housing with either an FC or ST optical connector. The modules integrate an InGaAs/InP PIN photodiode and support data rates up to 1.25 Gbps, providing high-performance optical detection for communication and sensing applications.

## Features

- Plane structure InGaAs PD with high linearity
- High speed operation up to 1.25Gbps
- High Responsivity at 1310nm and 1550nm
- Low dark current and low capacitance
- Low return loss
- FC/ST receptacle package

## Applications

- SONET OC3, OC-12 / SDH STM-1, STM-4
- LAN

## Ordering Information

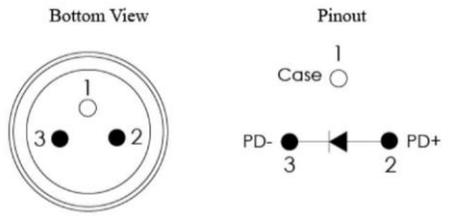
Model Number Format	R13-RY1-1
R13 = Receiver	InGaAs/InP PIN photodiode
R = Package	Receptacle
Y = Connector	FC (FC), ST (ST)
1 = Fiber	9/125um SM fiber
1 = Mount	N/A

## Specifications

Absolute Maximum Ratings			
Parameters	Symbol	Min.	Unit
Storage Temperature	Tstg	-40 to +85	°C
Operating Case Temperature	Top	-40 to +85	°C
Peak Optical Power	Po	3	mW
PD Reverse Voltage	V <sub>RD</sub>	20	V
PD Forward Current	I <sub>FD</sub>	10	mA
Soldering Temperature	Stemp	260	°C
Soldering Time	Stime	10	sec

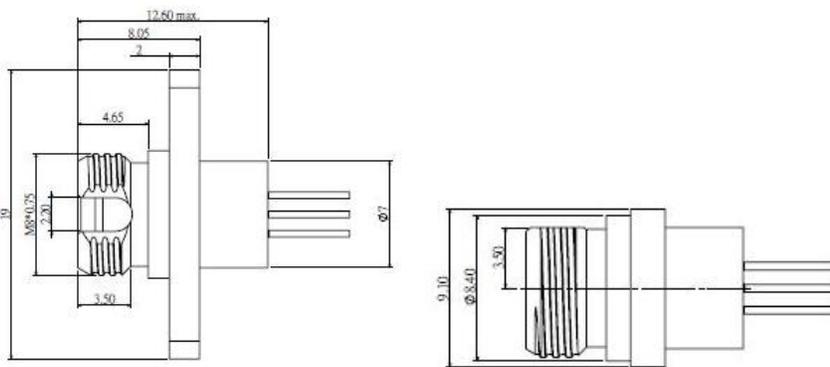
Electro-Optical Characteristics (CW @ T <sub>C</sub> = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Optical Wavelength Range	λ	1100	-	1630	nm	
Bandwidth	BW	-	1.5	-	GHz	V <sub>R</sub> =5V
Responsivity	R	0.8	0.9	-	A/W	λ=1310nm, V <sub>R</sub> =5V, P <sub>in</sub> = 100uW
Dark current	I <sub>d</sub>	—	0.2	2.0	nA	V <sub>R</sub> =5V
Capacitance	C	—	—	0.5	pF	V <sub>R</sub> =5V
Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>	—	—	300	ps	V <sub>R</sub> =5V, 20%~80%

Pin Configuration

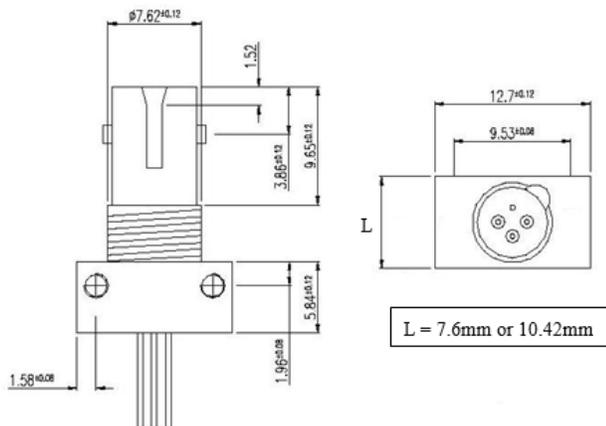


Outline Dimensions (unit: mm)

FC Receptacle



ST Receptacle



Note: Specifications are subject to change without notice.