Analog InGaAs PIN Photodiode in FC Receptacle
R13A-5G-RFCB

Data Sheet

Overview

The Lasermate R13A-5G-RFCB is a high-quality analog photodetector in FC receptacle package designed for >5GHz CATV receiver applications. The analog PD modules are optically aligned to optimize performance and balance the parameters of responsivity, distortion, and back reflection.

Features

- Plane structure InGaAs photodiode with high linearity
- High speed performance, bandwidth >5GHz
- High responsivity
- Low dark current and low capacitance
- Packaged in FC connector receptacle

Applications

- SONET OC3, OC-12 / SDH STM-1, STM-4
- Suitable for CATV application

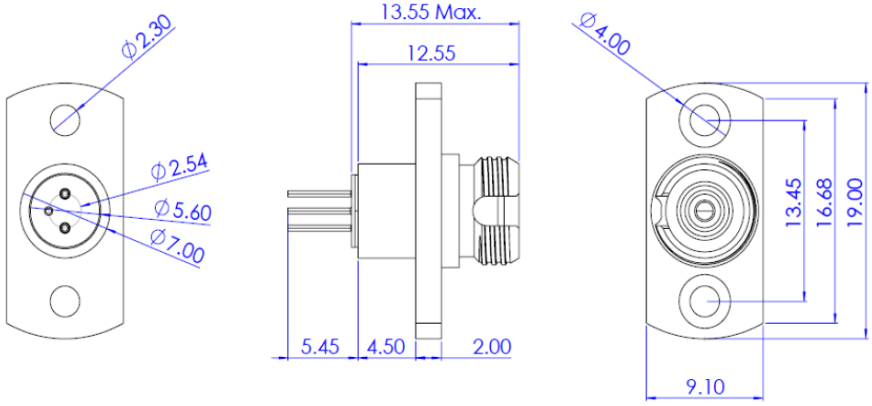
Specifications

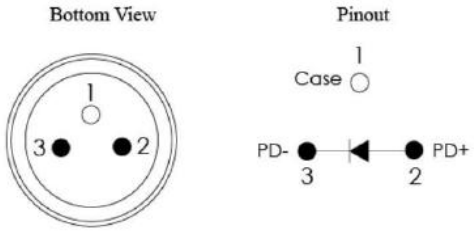
Absolute Maximum Ratings					
Parameters	Symbol	Min.	Max.	Unit	Conditions
Storage Temperature	T_{stg}	-40	85	°C	
Operating Temperature	T_{op}	-40	85	°C	
Peak Optical Power	P_o		3	mW	
PD Reverse Voltage	V_{RD}		20	V	
PD Forward Current	I_{FD}		10	mA	
Soldering Temperature	S_{temp}		260	°C	
Soldering Time	S_{time}		10	sec	

Electro-Optical Characteristics (T_c = 25° unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength	λ	1100		1620	nm	
Bandwidth	BW	5.0	6.5		GHz	V_R=5V
Responsivity	R	0.75	0.85		A/W	λ=1310nm, V_R=5V, P_{in}=100uW
		0.80	0.90			λ=1550nm, V_R=5V, P_{in}=100uW
Dark Current	I_d		0.1	1.0	nA	V_R=5V
Capacitance	C		0.4	0.55	pF	V_R=5V
Rise/Fall Time	t_r/t_f			300	Ps	V_R=5V, 20-80%
Second Order Inter-Modulation Distortion	IMD2		-75	-65	dBc	λ=1550nm (Note 1)

Notes: (1) IMD2 measured at V_R=12V, Pavg=0dBm, OMI=0.7, R_{LOAD}=50Ohm, f1+f2=850MHz, f1-f2=50MHz.

Outline Dimensions (unit: mm)





Note: Specifications are subject to change without notice.