



Model No. PDA-A13A3-5G

5GHz 1310nm/1550nm Analog InGaAs PIN Photodiode in TO-46 Package

FEATURES

- InGaAs PIN PD 3 pin TO for Analog application
- Industry standard TO-46 package with 1550nm AR coating cap lens and tab-less
- High responsivity at long wavelength
- Design for fiber optic application
- Low inter-modulation distortion
- Suitable for CATV application



ELECTRO-OPTICAL CHARACTERISTICS (Typical values are at 25°C)

PARAMETERS	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
RESPONSIVITY	R	0.8	0.9		A/W	$\lambda = 1310\text{nm}, V_R = 5\text{V}$
		0.9	1		A/W	$\lambda = 1550\text{nm}, V_R = 5\text{V}$
DARK CURRENT	I_D		0.1	1	nA	$V_R = 5\text{V}, T_A = 25^\circ\text{C}$
BREAKDOWN VOLTAGE	V_{BD}	25	40		V	$I_R = 10\mu\text{A}$
SECOND ORDER INTER-MODULATION DISTORTION	IMD2		-75	-65	dBc	$\lambda = 1550\text{nm}^{(1)}$
CAPACITANCE	C		0.4	0.55	pF	$V_R = 5\text{V}, f = 1\text{MHz}$
BANDWIDTH	BW	5	6.5			$V_R = 5\text{V}$

(1) IMD2 measured at $V_R = 12\text{V}, P_{avg} = 0\text{dBm}, \text{OMI} = 0.7, R_{load} = 50\Omega, f_1+f_2 = 850\text{MHz}, f_1-f_2 = 50\text{MHz}$. All are measured at 25°C.

ABSOLUTE MAXIMUM RATINGS

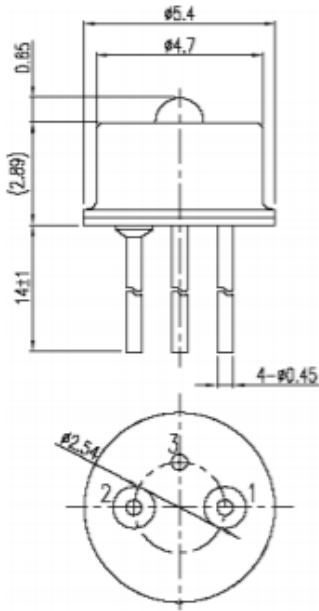
PARAMETERS	MIN.	MAX.	UNIT	CONDITIONS
STORAGE TEMPERATURE	-40	125	°C	
OPERATING TEMPERATURE	-40	85	°C	
LEAD SOLDER TEMPERATURE		260	°C	10 seconds
FORWARD CURRENT		10	mA	
REVERSE VOLTAGE		20	V	

Note: The above specifications are subject to change without notice.





OUTLINE DIMENSIONS (unit: mm)



Pinout:
1. Anode
2. Cathode
3. Case

TYPICAL CHARACTERISTICS

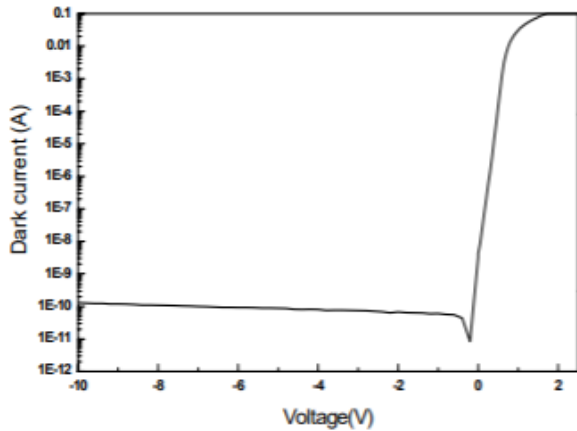


Fig. 1 Typical Dark Current and Forward Current.

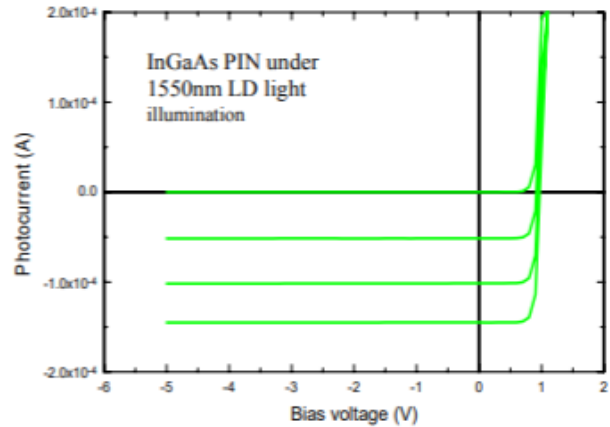


Fig. 2 Typical Photo-Current

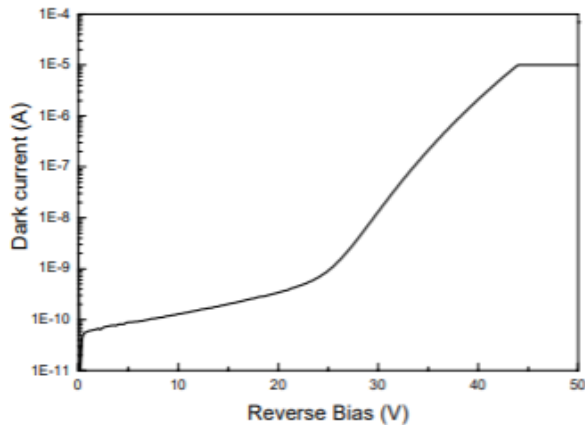


Fig. 3 Typical Breakdown Curve.

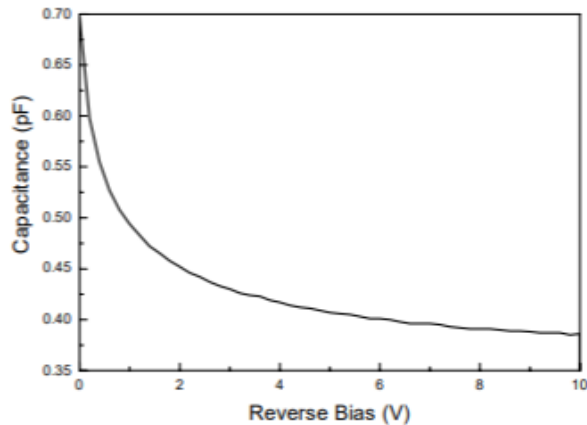


Fig. 4 Typical C-V Curve

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