

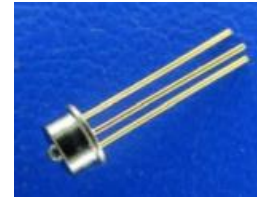


Model No. PDA-A13B3-2G

2.5GHz 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 cap lens and tab-less
- High responsivity at 1310nm and 1550nm
- Low inter-modulation distortion
- Optimized for fiber optic application
- 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	50		V	$I_R = 10\mu\text{A}$
SECOND ORDER INTER-MODULATION DISTORTION	IMD2		-75	-70	dBc	$\lambda = 1310\text{nm}^{(1)}$
			-75	-70	dBc	$\lambda = 1550\text{nm}^{(1)}$
THIRD ORDER INTER-MODULATION DISTORTION	IMD3		-85	-80	dBc	$\lambda = 1310\text{nm}^{(1)}$
			-85	-80	dBc	$\lambda = 1550\text{nm}^{(1)}$
CAPACITANCE	C		0.56	0.7	pF	$V_R = 5\text{V}$, $f = 1\text{MHz}$
BANDWIDTH	BW	2.5	3.2			$V_R = 5\text{V}$

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

ABSOLUTE MAXIMUM RATINGS

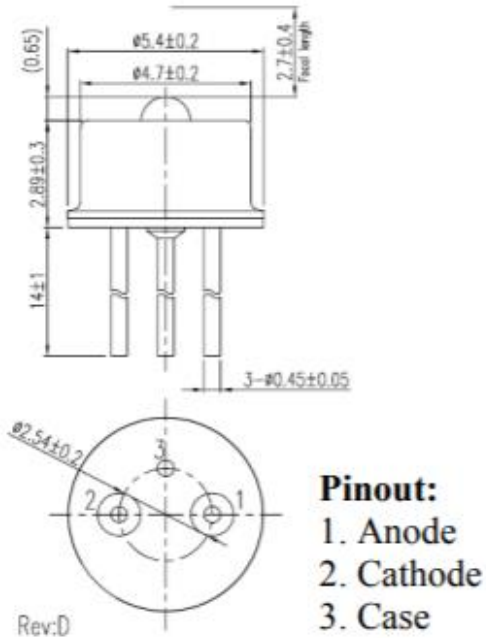
PARAMETERS	MIN.	MAX.	UNIT	CONDITIONS
STORAGE TEMPERATURE	-40	100	°C	
OPERATING TEMPERATURE	-40	85	°C	
LEAD SOLDER TEMPERATURE		260	°C	10 seconds
FORWARD CURRENT		10	mA	
REVERSE VOLTAGE		20	V	

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





OUTLINE DIMENSIONS (unit: mm)



TYPICAL CHARACTERISTICS

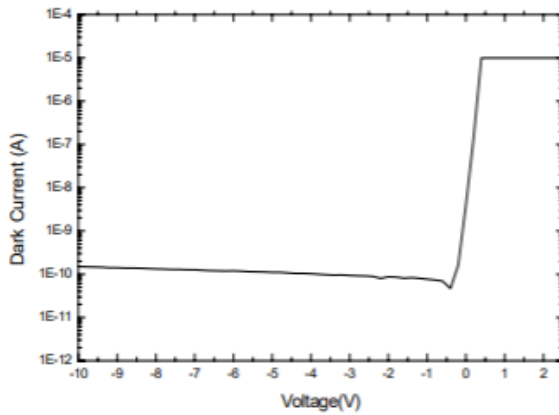


Fig. 1 Typical Dark Current and Forward Current.

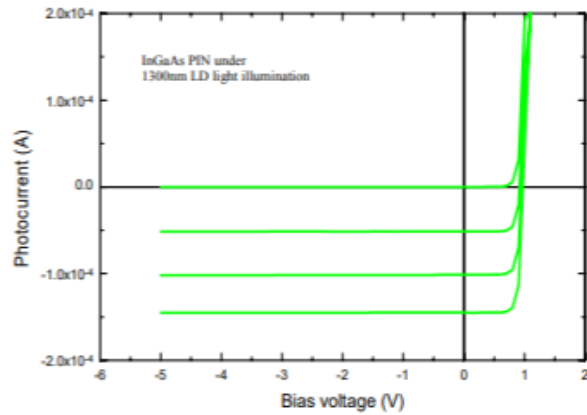


Fig. 2 Typical Photo-Current

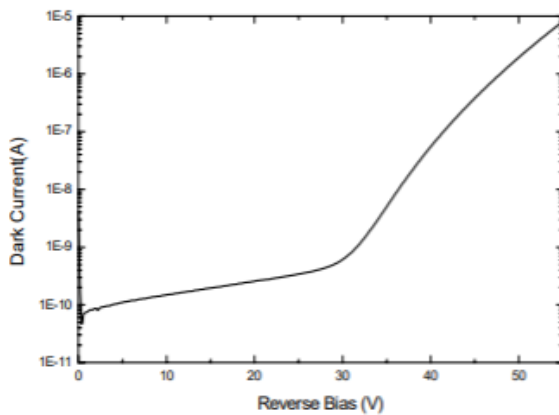


Fig. 3 Typical Breakdown Curve.

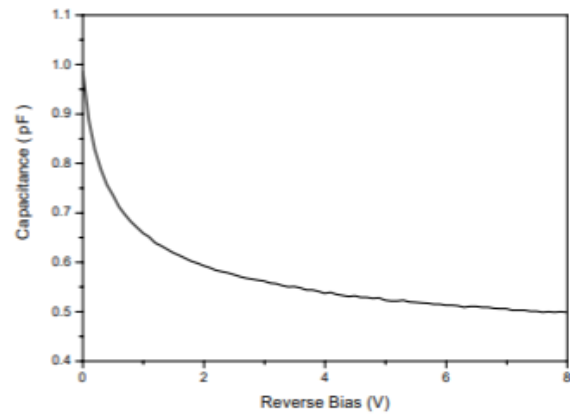


Fig. 4 Typical C-V Curve

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

