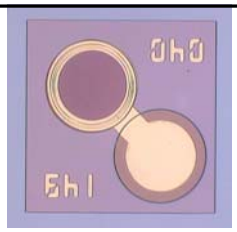
TPD-1C12-033

InGaAs PIN photodiode chip



FEATURES:

• Optimized for fiber optic and CATV applications
• High forward current and low capacitance for 2.5Gbps to support 3.125Gbps applications.

ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Responsivity	R	0.9	1.0		A/W	V_R=1.5V, λ=1550nm @ 25C
Dark Current	I_D		0.3	1	nA	V_R=5V
Breakdown Voltage	V_{BD}	25	55		V	I_R=10μA
Capacitance	C		0.55	0.6	pF	V_R=1.5V, f=1 MHz
			0.45	0.5	pF	V_R=5V, f=1 MHz
Bandwidth	BW	2.5	3.2		GHz	V_R=1.5V

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	100	℃	
Operating Temperature	-40	85	℃	

Fig. 1 Typical Dark Current and Forward Current

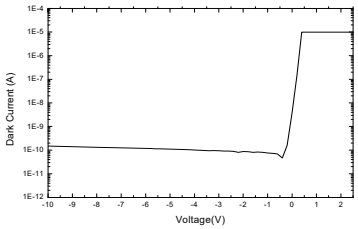


Fig. 2 Typical Photo-Current

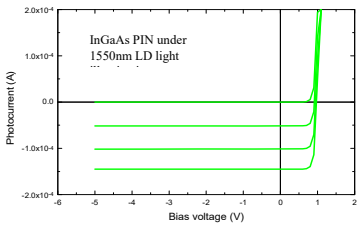


Fig 3 Typical breakdown Curve

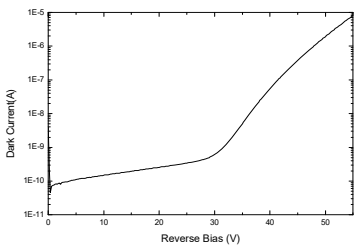
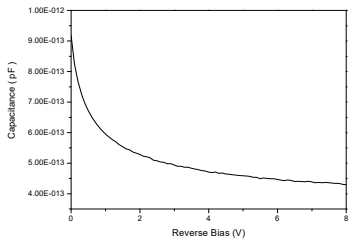
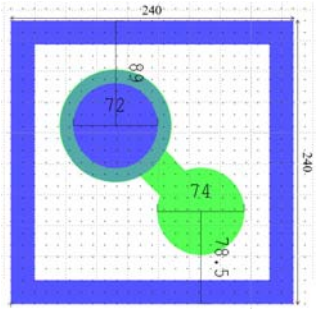


Fig 4 Typical C-V Curve



OUTLINE DIAGRAM:



• Chip size is typical 240x240 μm.

• Chip thickness is 200±25um

• Sensitive area is typical 72 μm in diameter.