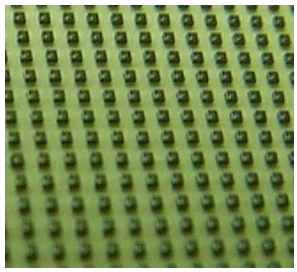
TPD-8D12-006

GaAs PIN photodiode chip



FEATURES:

- High responsivity at 850 nm.
- Optimized for 2.5G fiber optic application.
- Low dark current and low capacitance.
- Non-hermetic design.

ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Responsivity	R	0.55	0.65		A/W	V_R=5V, λ=850nm
Dark Current	I_D		0.2	1	nA	V_R=5V
Breakdown Voltage	V_{BD}	50			V	I_R=10μA
Capacitance	C		0.70	0.90	pF	V_R=1.2V, f=1 MHz
Bandwidth	BW	1.9			GHz	V_R=5V

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage temperature	-40	100	℃	
Operating temperature	-40	85	℃	
Forward current		10	mA	T＝25℃
Reverse current		2	mA	T＝25℃
Reverse voltage		20	V	T＝25℃

Fig. 1 Typical Dark Current and Forward Current

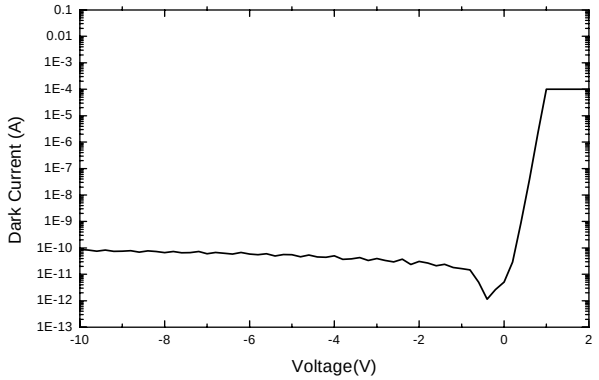


Fig. 2 Typical Photo-Current

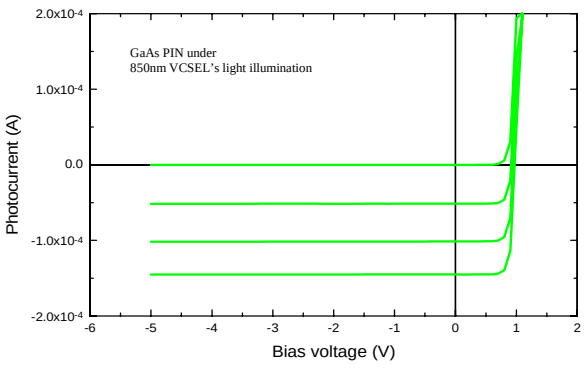


Fig. 3 Typical Breakdown Curve

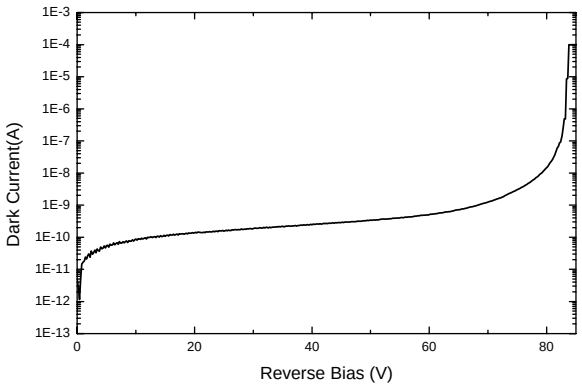
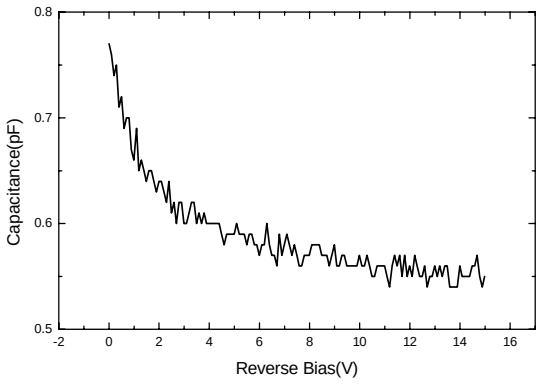
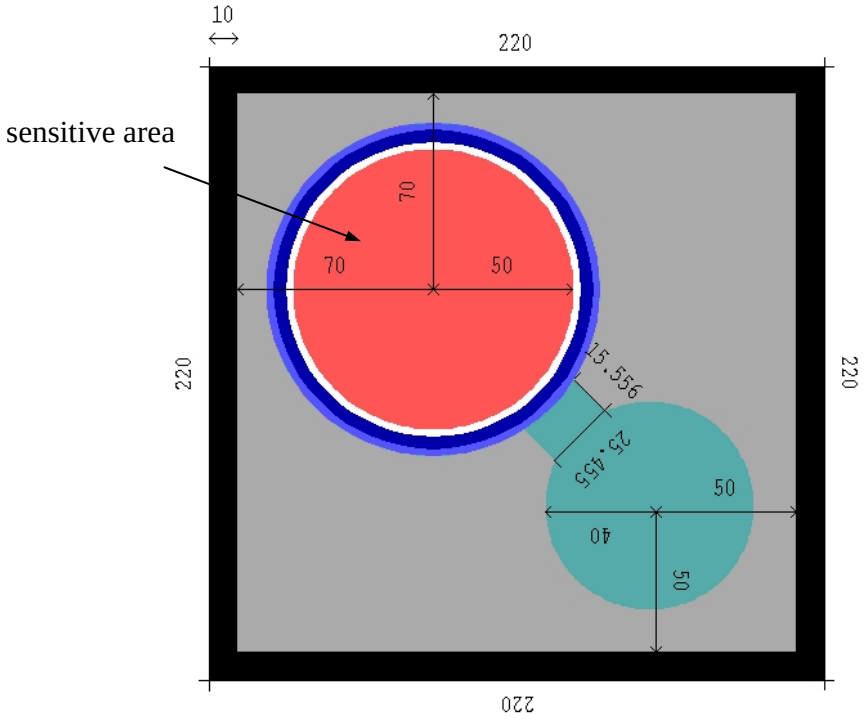


Fig. 4 Typical C-V Curve



OUTLINE DIAGRAM:



- Chip size is typical 220x220 μm .
- Chip thickness is 200±12.5um
- Sensitive area is typical 100 μm in diameter.