Preliminary

TPA-1C(N)-653

Non-hermetic 10Gbps InGaAs PIN 1xN array

FEATURES:

- 1xN array bar with 250um pitch (N≧2)
- Optimized for fiber optic application
- Data rate up to 10Gbps
- Low capacitance and dark current
- Non-hermetic application

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Active Diameter	Φ		50		μm	
Responsivity	R	0.9	1.1		A/W	V_R=1.5V, λ=1550nm @ 25C
		0.8	0.9			V_R=1.5V, λ=1310nm @ 25C
Dark Current	I_D		0.2	1	nA	V_R=5V
Breakdown Voltage	V_{BD}	25	40		V	I_R=10μA
Capacitance	C		0.25	0.27	pF	V_R=1.5V, f=1 MHz
			0.20			V_R=5V, f=1 MHz
Bandwidth	BW		9		GHz	V_R=5V

ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	100	℃	
Operating Temperature	-40	85	℃	
Reverse Current		2	mA	
Forward Current		10	mA	
Reverse Voltage		20	V	
Optical Power		2	mW	

ABSOLUTE MAXIMUM RATINGS:

Fig.1 Typical Dark Current and Forward Current

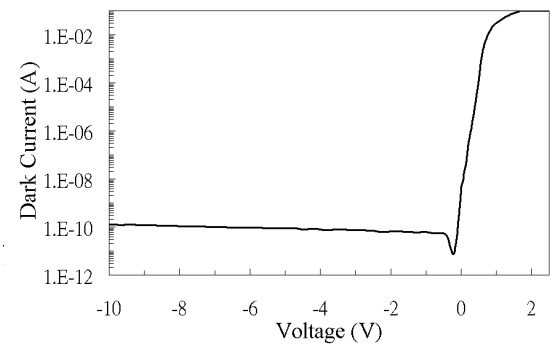


Fig.2 Typical PhotoCurrent

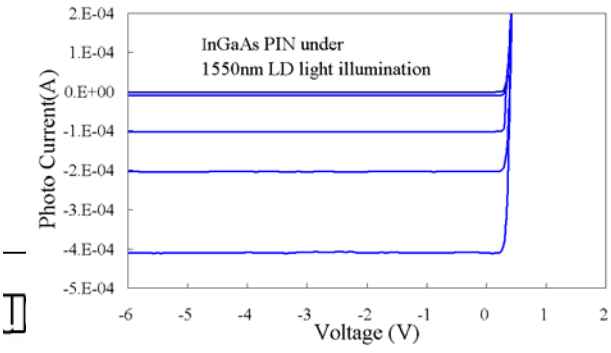


Fig.3 Typical Breakdown Curve

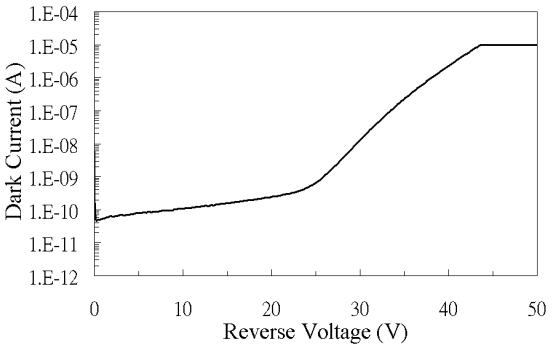
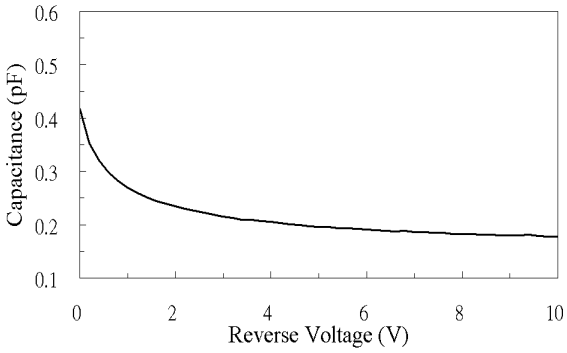
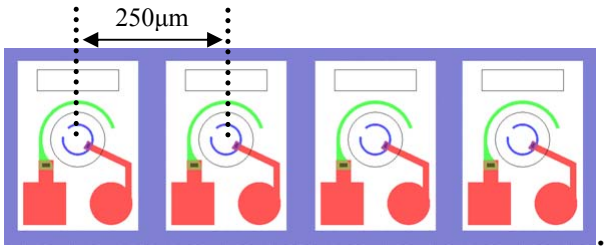


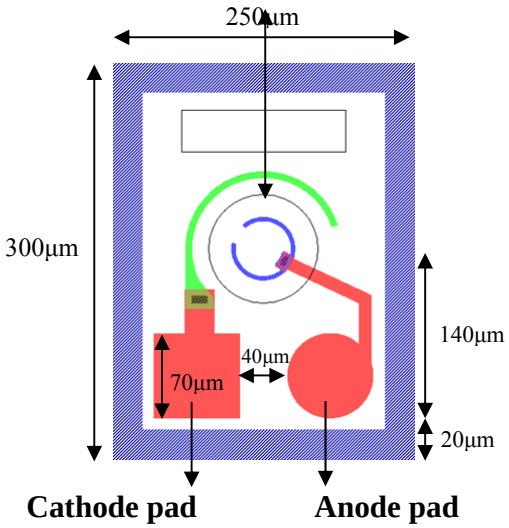
Fig.4 Typical C-V Curve



OUTLINE DIAGRAM:



……xN



•Chip size is typical (250*N-30) μm length and 300μm width

• Chip thickness is 200±12.5μm.

• Sensitive area is typical 50 μm in diameter.