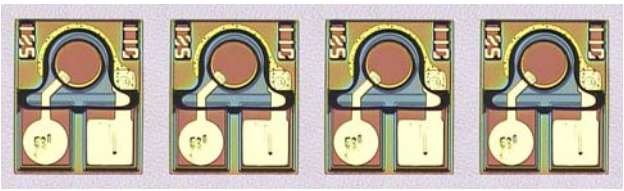
TPA-8D(N)-653

Non-hermetic 10Gbps GaAs PIN 1xN array

Preliminary

FEATURES:

- 1xN array bar with 250um pitch (N≧2)
- High responsivity at 850nm.
- Optimized for fiber optic application.
- Low dark current and low capacitance.
- Planarized and Non-hermetic design.



ELECTRO-OPTICAL CHARACTERISTICS: (T=25℃)

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Responsivity	R	0.55	0.65		A/W	V_R=1.5V, λ=850nm
Dark Current	I_D		0.1	1	nA	V_R=5V
Breakdown Voltage	V_{BD}	50			V	I_R=10μA
Capacitance	C		0.22	0.25	pF	V_R=1.5V, f=1 MHz
			0.20	0.23		V_R=5V, f=1 MHz
Bandwidth	BW		10		GHz	V_R=5V

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	100	℃	
Operating Temperature	-40	85	℃	
Reverse Current		2	mA	T=25℃
Reverse Voltage		20	V	T=25℃
Forward Current		10	mA	T=25℃

Fig.1 Typical Dark Current and Forward Current

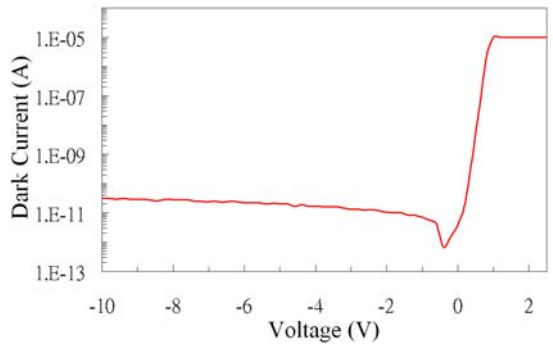


Fig.2 Typical Photo Current

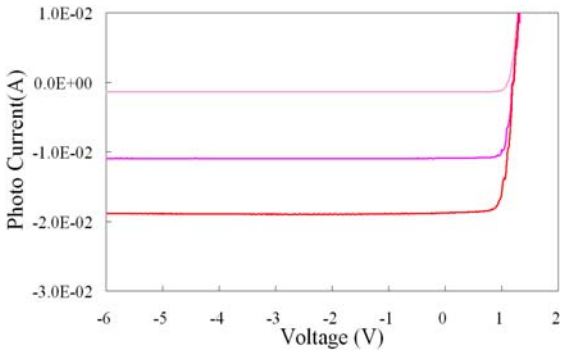


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Fig. 3 Typical Breakdown Curve

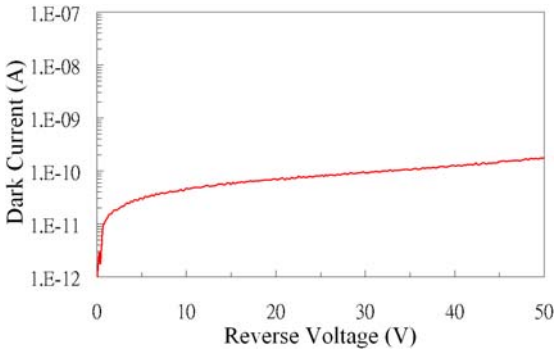
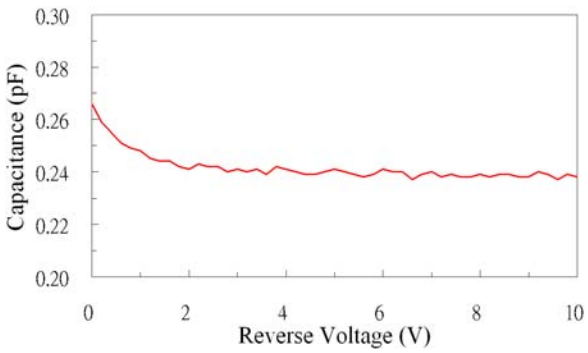
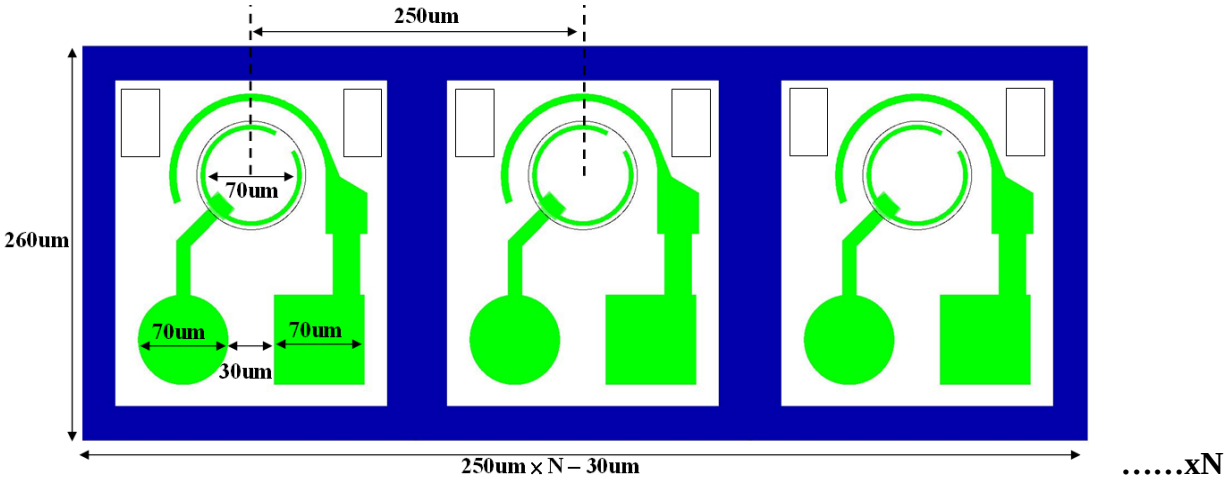


Fig. 4 Typical C-V Curve



OUTLINE DIAGRAM:



• Chip size is typical (250um×N-30um)×(260um).

• Chip thickness is 200±12.5um

• Sensitive area is typical 70 μm in diameter.

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