

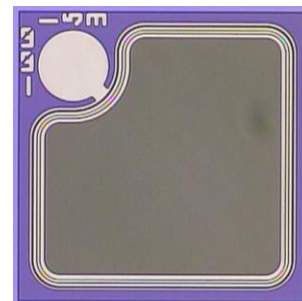
TPD-1C12-040

InGaAs PIN photodiode chip

(For in-house only)

FEATURES:

- Optimized for monitor application
- Low dark current



ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Responsivity	R	0.8	1.0		A/W	$V_R=5V, \lambda=1310nm@25^{\circ}C$
		0.9	1.1		A/W	$V_R=5V, \lambda=1550nm@25^{\circ}C$
Dark Current	I_D		0.2	1	nA	$V_R=5V@25^{\circ}C$
Breakdown Voltage	V_{BD}	20	45		V	$I_R=10\mu A$
Capacitance	C		4.5	5.5	pF	$V_R=5V$

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	100	$^{\circ}C$	
Operating Temperature	-40	85	$^{\circ}C$	
Reverse Voltage		20	V	
Reverse Current		2	mA	
Optical Power		2	mW	

Fig. 1 Typical Dark Current and Forward Current

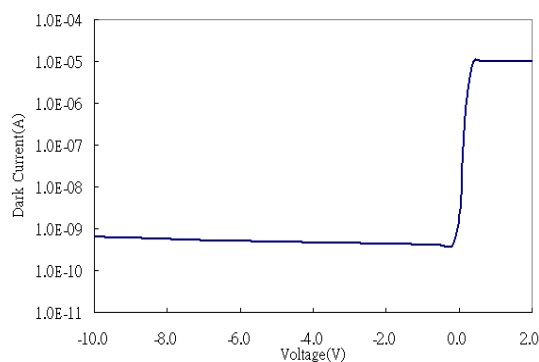
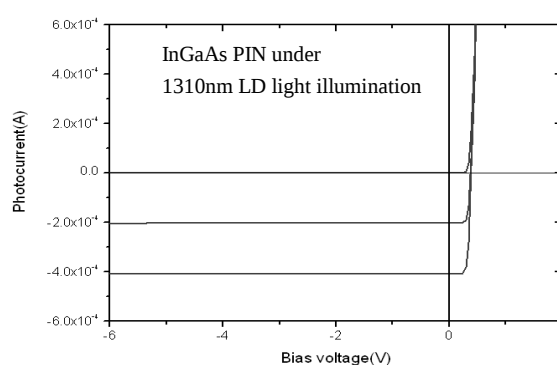


Fig. 2 Typical Photo-Current



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Fig. 3 Typical Breakdown Curve

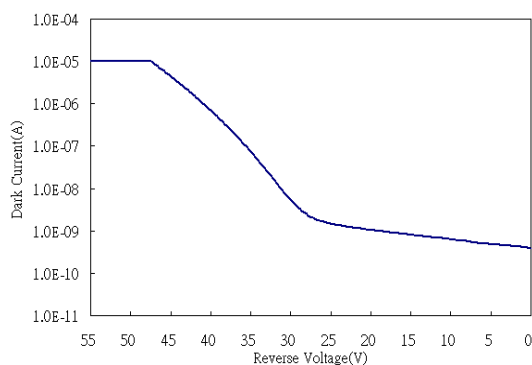
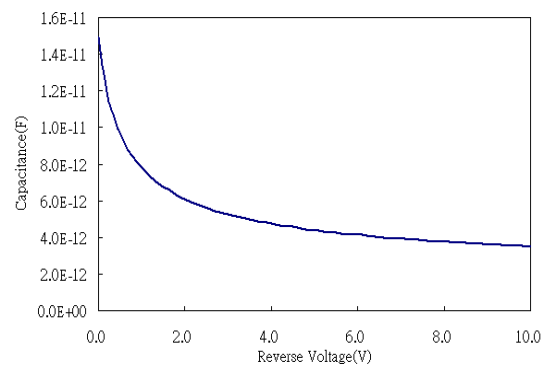
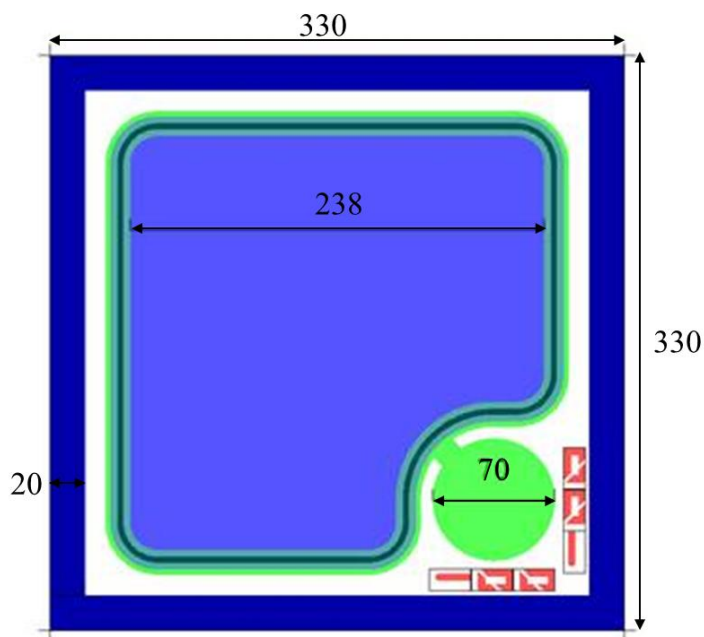


Fig. 4 Typical C-V Curve



OUTLINE DIMENSIONS:



Unit: μm

- Chip size is typical $330 \times 330 \mu\text{m}$
- Chip thickness is $300 \pm 10 \mu\text{m}$