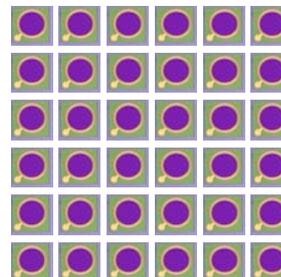


TPD-1C12-018

InGaAs PIN photodiode chip

FEATURES:

- Optimized for monitor application.
- Low dark current and low capacitance.



ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Responsivity	R	0.8	1.0		A/W	$V_R=5V, \lambda=1300nm@ 25C$
		0.9	1.1		A/W	$V_R=5V, \lambda=1550nm @ 25C$
Dark Current	I_D		0.3	1	nA	$V_R=5V@ 25C$
Breakdown Voltage	V_{BD}	25	35		V	$I_R=1\mu A$
Capacitance	C		6	10	pF	$V_R=5V, f=1 MHz$

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage temperature	-40	100	$^{\circ}C$	
Operating temperature	-40	85	$^{\circ}C$	
Reverse current		2	mA	
Forward current		10	mA	
Reverse voltage		20	V	
Optical power		2	mW	
ESD	500		V	

Fig. 1 Typical Dark Current and Forward Current

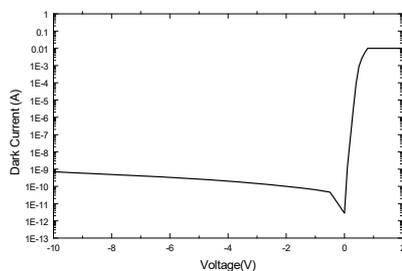


Fig. 2 Typical Photo-Current

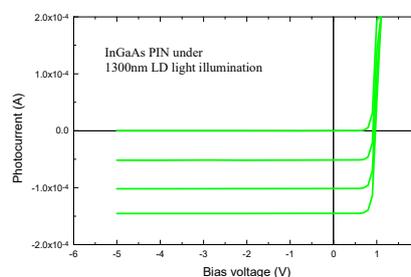


Fig. 3 Typical Breakdown Curve

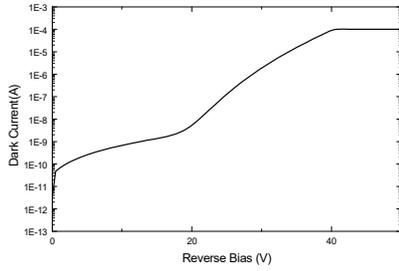
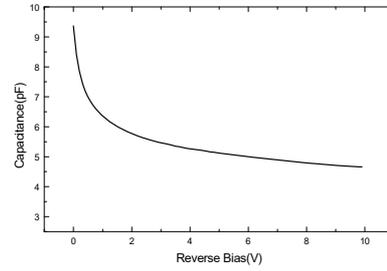
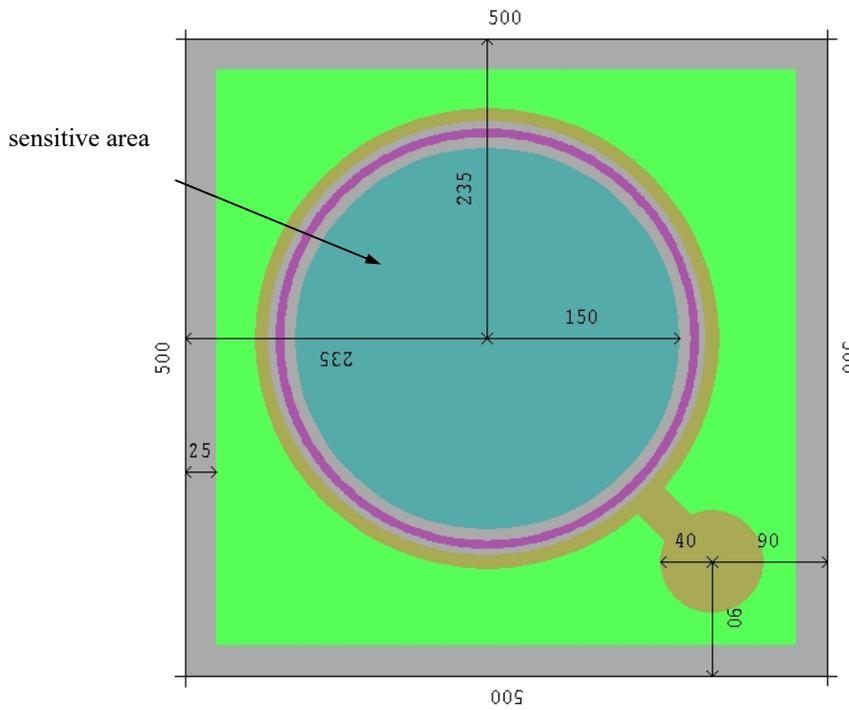


Fig. 4 Typical C-V Curve



OUTLINE DIAGRAM:



- Chip size is typical $500 \times 500 \pm 30 \mu\text{m}$.
- Chip thickness is $200 \pm 15 \mu\text{m}$
- Sensitive area is typical $300 \pm 5 \mu\text{m}$ in diameter.