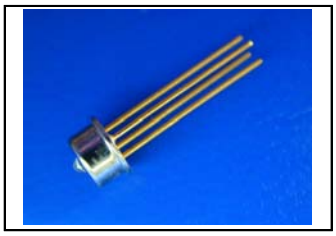
Preliminary

TMC-2C43-016

InGaAs PIN photodiode TO-46 metal can

FEATURES:



- Industry standard TO-46 package with cap lens and tab-less.
- Optimized for fiber optic application.
- High responsivity at 1310nm and 1550nm.
- Low inter-modulation distortion.
- Suitable for CATV application.

ELECTRO-OPTICAL CHARACTERISTICS: (Typical values are at 25℃)

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Responsivity	R	0.8	0.9		A/W	λ=1310nm, V_R=5V
		0.9	1.0			λ=1550nm, V_R=5V
Dark Current	I_D		0.1	1	nA	V_R=5V, T_A=25℃
Breakdown Voltage	V_{BD}	25	50		V	I_R=10μA
2nd order Inter-modulation distortion	IMD2		-75	-70	dBc	λ=1550nm(1)
3rd order Inter-modulation distortion	IMD3		-85	-80	dBc	λ=1550nm(2)
Capacitance	C		0.56	0.7	pF	V_R=5V, f=1MHz
Bandwidth	BW	2.5	3.2		GHz	V_R=5V

Notes:
1. IMD2 measured at V_R=12V, Pavg=0dBm, OMI=0.7, R_{LOAD}=50Ω, f1+f2=850 MHz, f1-f2=50 MHz. All are measured at 25℃.
2. IMD3 measured at V_R=12V, Pavg=0dBm, OMI=0.7, R_{LOAD}=50Ω, 2f1-f2=500 MHz, 2f2-f1=350 MHz. All are measured at 25℃.

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	125	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds
Forward current		10	mA	
Reverse voltage		20	V	

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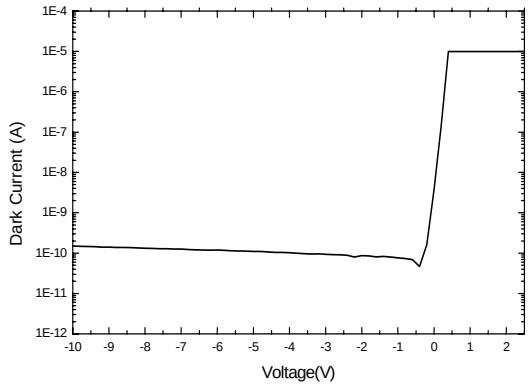


Fig. 1 Typical Dark Current and Forward Current.

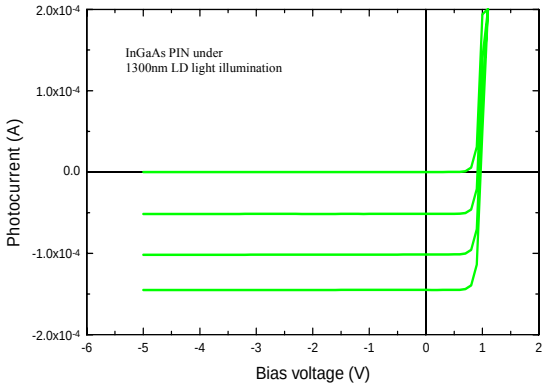


Fig. 2 Typical Photo-Current

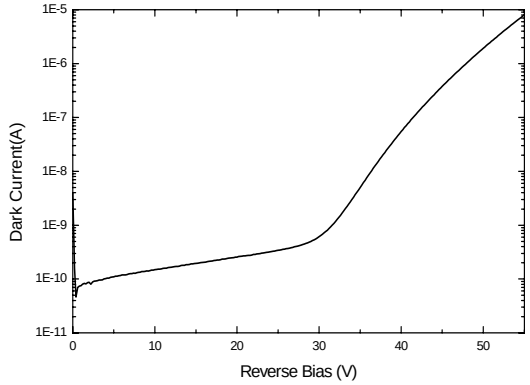


Fig. 3 Typical Breakdown Curve.

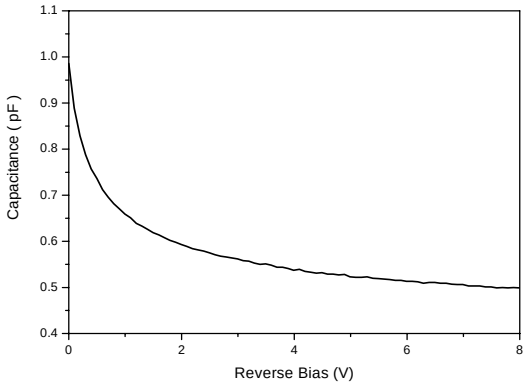
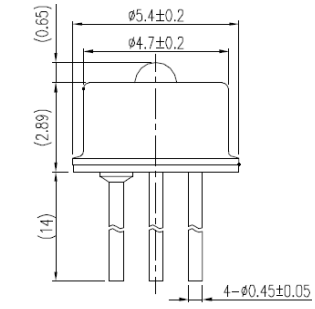
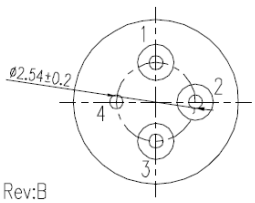


Fig. 4 Typical C-V Curve

OUTLINE DIMENSIONS:

• Unit: mm





Pinout:
1. Anode
2. N.C.
3. Cathode
4. Case

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