

PART NUMBER FD1000W

Large Area InGaAs PIN Photodiodes
diameter of active area=1 mm

DESCRIPTION

Large area, high sensitivity photodiode for use in infrared instrumentation and sensing applications. High spectral response in the region 800 nm to 1700 nm. The photosensitive area is 1 mm in diameter. Planar-passivated device structure.

ABSOLUTE MAXIMUM RATINGS (T=25°C)

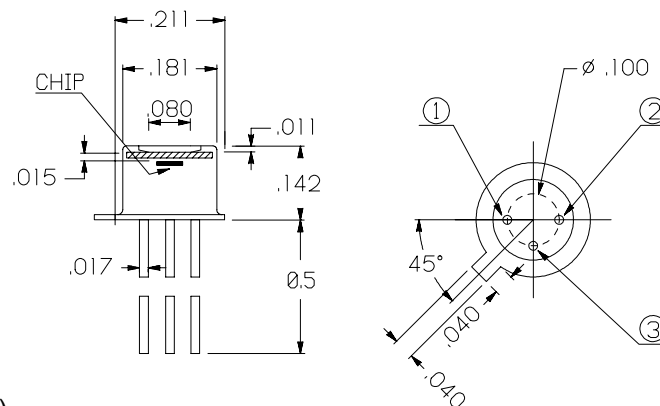
PARAMETER	RATING	UNITS
Storage Temperature	-40 to +100	°C
Operating Temperature	-40 to +85	°C
Forward Current	100	mA
Reverse Current	20	mA
Reverse Voltage	2	V

OPTICAL AND ELECTRICAL CHARACTERISTICS (T=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Responsivity	R	$\lambda = 850 \text{ nm}$	0.10	0.20	-	A/W
		$\lambda = 1300 \text{ nm}$	0.80	0.90	-	
		$\lambda = 1550 \text{ nm}$	0.85	0.95	-	
Shunt Resistance ^①	R_s	$V_R=0V$	2	20	-	M Ω
Capacitance	C	$V_R=0V$	-	80	150	pF

① Very High Shunt Resistance devices are available upon request.

DIMENSIONAL OUTLINE



(dimensions in inches)

1	ANODE
2	CATHODE
3	CASE



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TYPICAL CHARACTERISTICS

Fig. 1 Spectral Response (R vs. λ)

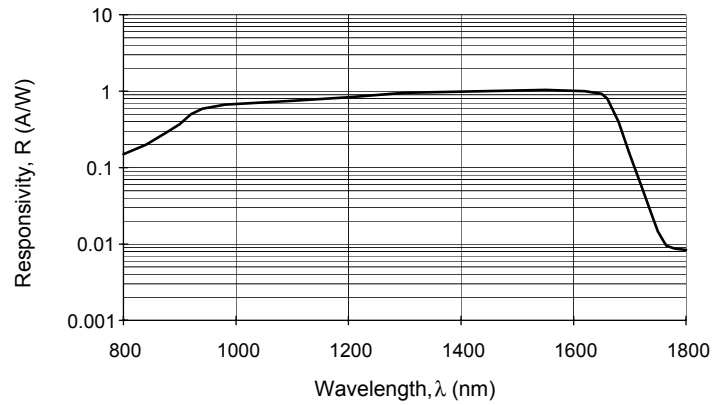


Fig. 2 Dark Current vs. Reverse Voltage

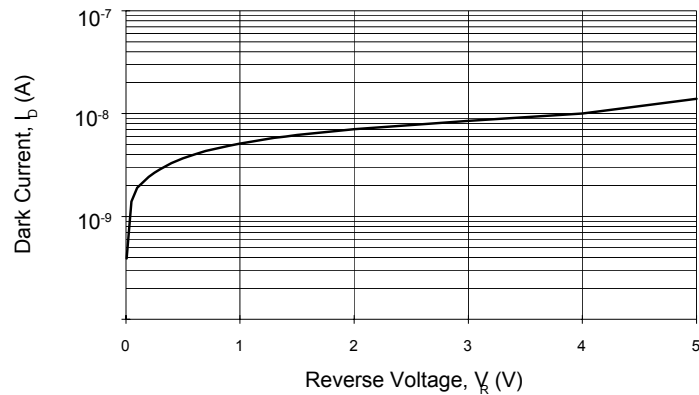


Fig. 3 Capacitance vs. Reverse Voltage

