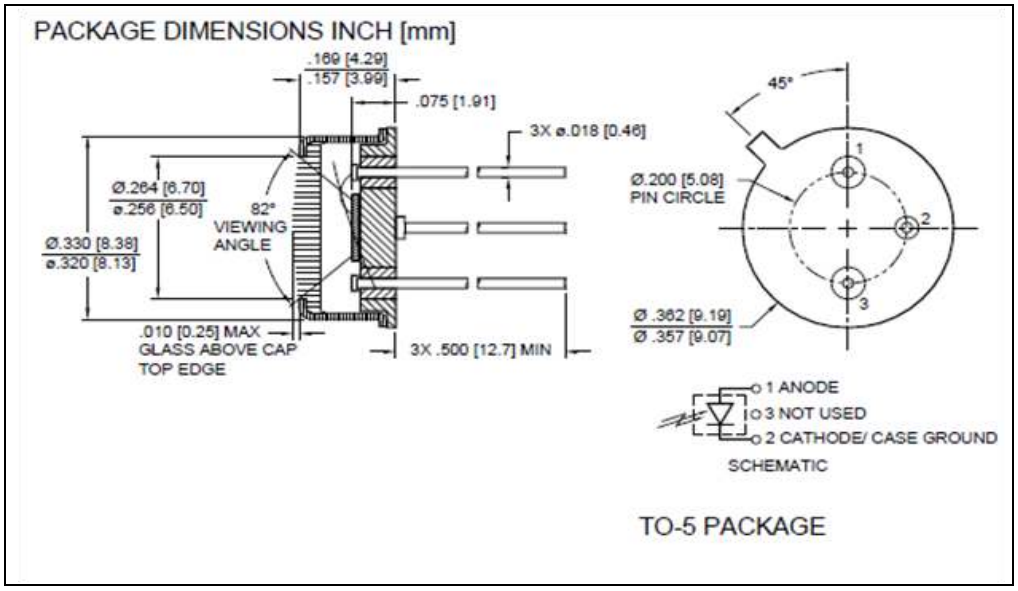

DESCRIPTION

The SD197-121-041 is a high sensitivity, low capacitance and noise, 5mm diameter active area InGaAs photodiode, sensitive to wavelengths in visible extended (450-1700nm) spectral range and used for imaging and sensing applications. The photodetector is assembled in a TO-5 package.

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FEATURES

- Low Noise
- Low Dark Current and Capacitance
- High Sensitivity
- Detection in LWIR

RELIABILITY

This API high-reliability detector is in principle able to meet military test requirements (Mil-STD-750, Mil-STD-883) after proper screening and group test.

Contact API for recommendations on specific test conditions and procedures.

APPLICATIONS

- Industrial Sensing
- Security and Defense
- Communication
- Medical

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS
Operating Temperature	0	+85	°C
Storage Temperature	-25	+85	°C
Soldering Temperature	-	+240	°C
Wavelength Range	450	1700	nm
Reverse Voltage	-	20	V

T_a = 23°C
non condensing
see recommended reflow profile

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

REV 5-14-15

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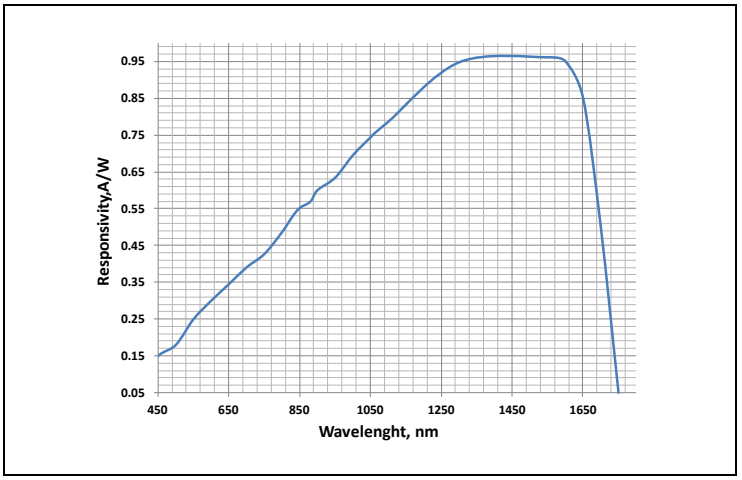
OPTO-ELECTRICAL PARAMETERS

T_a = 23°C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Breakdown Voltage	I_{bias} = 100 µA	10	-	-	V
Responsivity	λ= 660 nm	-	0.35	-	A/W
Responsivity	λ= 1200 nm	-	0.90	-	A/W
Shunt Resistance	V_{bias} = 10 mV	-	30	-	MΩ
Dark Current	V_{bias} = 5V	-	-	10	nA
Capacitance	V_{bias} = 0V; f = 1 MHz	-	-	100	pF
Rise Time (50Ω load)	V_{bias} = 24V; λ= 826 nm	-	5	-	ns
Noise Equivalent Power	λ= 900 nm	-	10	-	10^{-14}W/Hz$^{0.5}$

TYPICAL PERFORMANCE

SPECTRAL RESPONSE



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