

InGaAs VIS-IR Photodiodes 500nm – 1700nm

Key Features

Active Diameter (300 μ m to 5 mm)

0.5 μ m to 1.7 μ m Spectral Response

Linear Operation

Low Dark Current for High Sensitivity

Low Capacitance for High Speed

Fiber Pigtails (Single or Multi Mode including Hi-Reliability Hi-Rel Pigtail)

Packages (TO-46, TO-18, TO-5, TO-8, Custom, Biconvex Lens, Sub-mount with Ball Lens Option)

Applications

Free Space Optics (FSO)

LIDAR/LADAR

High Sensitivity Photometry

Optical Communications

Optical Time Domain Reflectometer (OTDR)

NIR Photometry/Radiometry

Spectroscopy

Gas Sensing

FTIR

Raman Spectroscopy

Medical Diagnostics

InGaAs VIS-IR Photodiodes 500nm – 1700nm

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Components



Electrical Characteristics

@23°C +/- 2°C

		GAP300/VIS	GAP500/VIS	GAP1000/VIS
Active Diameter	mm	0.3	0.5	1.0
Peak Wavelength	nm	1,6 +/-, -0,1	1,6 +/-, -0,1	1,6 +/-, -0,1
Cut-off Wavelength	nm	1,7 +/-, - 0,1	1,7 +/-, - 0,1	1,7 +/-, - 0,1
Responsivity typ	A / W			
@	650nm	0.14	0.14	0.14
	850nm	0,32	0,32	0,32
	1300nm	0,9	0,9	0,9
	1550nm	0,95	0,95	0,95
R _s	MΩ typ	250	125	50
Dark Current	nA typ	1 @ 5V	6 @ 5V	25 @ 5V
C _J	pF typ	4 @ 5V	8 @ 5V	30 @ 5V
Bandwidth MHz, 50 Ω -3dB		800 @ 5V	400 @ 5V	100 @ 5V
T _r R _L = 50 Ω	ns typ	0,4 @ 5V	1 @ 5V	3 @ 5V
NEP (1550nm) fW /√Hz min		18	44	89
Linear Range ± 0.2dB dBm		8 @ 5V	8 @ 5V	8 @ 5V
Case Style	standard	TO-46mod	TO-46mod	TO-46mod

Maximum Ratings

		GAP300/VIS	GAP500/VIS	GAP1000/VIS
Storage Temperature	°C	-40 to 125	-40 to 125	-40 to 125
Operating Temperature	°C	-40 to 85	-40 to 85	-40 to 85
Reverse Voltage	V	20	20	20
Reverse Current	mA	10	10	10
Forward Current	mA	10	10	10
Power Dissipation	mW	100	100	100

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Electrical Characteristics

@23°C +/- 2°C

		GAP1500/VIS	GAP2000/VIS	GAP3000/VIS	GAP5000/VIS
Active Diameter	mm	1.5	2.0	3.0	5.0
Peak Wavelength	nm	1,6 +/-, -0,1	1,6 +/-, -0,1	1,6 +/-, -0,1	1,6 +/-, -0,1
Cut-off Wavelength	nm	1,7 +/-, - 0,1	1,7 +/-, - 0,1	1,7 +/-, - 0,1	1,7 +/-, - 0,1
Responsivity typ	A / W				
@	650nm	0.14	0.14	0.14	0.14
	850nm	0,32	0,32	0,32	0,32
	1300nm	0,9	0,9	0,9	0,9
	1550nm	0,95	0,95	0,95	0,95
R _s	MΩ typ	40	30	8	1,5
Dark Current	nA typ	50 @ 5V	50 @ 1V	200 @ 1V	200 @ 0.1V
C _J	pF typ	75 @ 5V	300 @ 0V	600 @ 0V	1800 @ 0V
Bandwidth MHz, 50 Ω -3dB		42 @ 5V	10 @ 0V	5 @ 0V	2 @ 0V
T _r R _L = 50 Ω	ns typ	8 @ 5V	33 @ 0V	66 @ 0V	200 @ 0V
NEP (1550nm) fW /√Hz min		100	125	200	460
Linear Range ± 0.2dB dBm		8 @ 5V	6 @ 0V	6 @ 0V	6 @ 0V
Case Style	standard	TO-46 (mod.)	TO-5	TO-5	TO-8

Maximum Ratings

		GAP1500/VIS	GAP2000/VIS	GAP3000/VIS	GAP5000/VIS
Storage Temperature	°C	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Operating Temperature	°C	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Reverse Voltage	V	15	3	2	2
Reverse Current	mA	10	10	10	10
Forward Current	mA	10	10	10	10
Power Dissipation	mW	100	100	50	50

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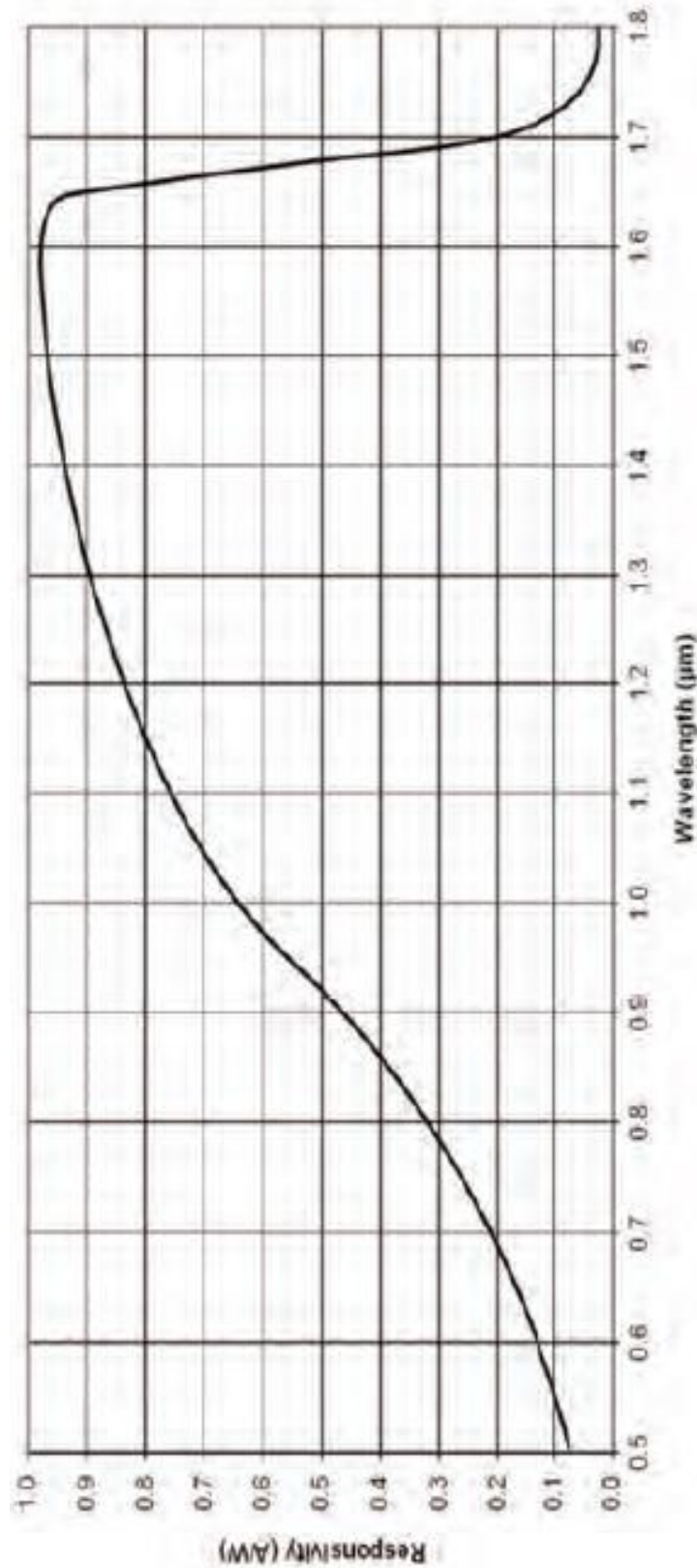
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Stand 02.07.2018

InGaAs VIS-IR Photodiodes

500nm – 1700nm

Spectral response



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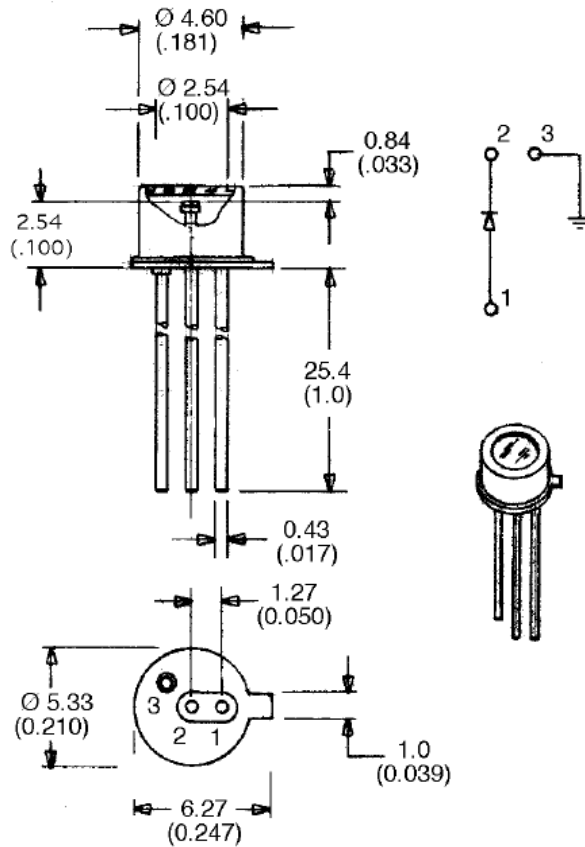


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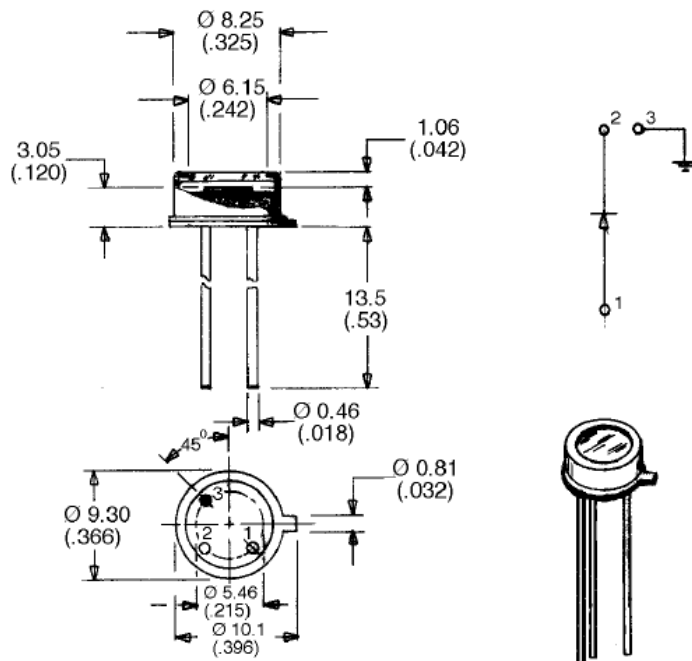
Package Outlines

Dimensions in mm (in.); many other packages (including lensed packages) available.

TO-46mod



TO-5





T08

