

GAP 500

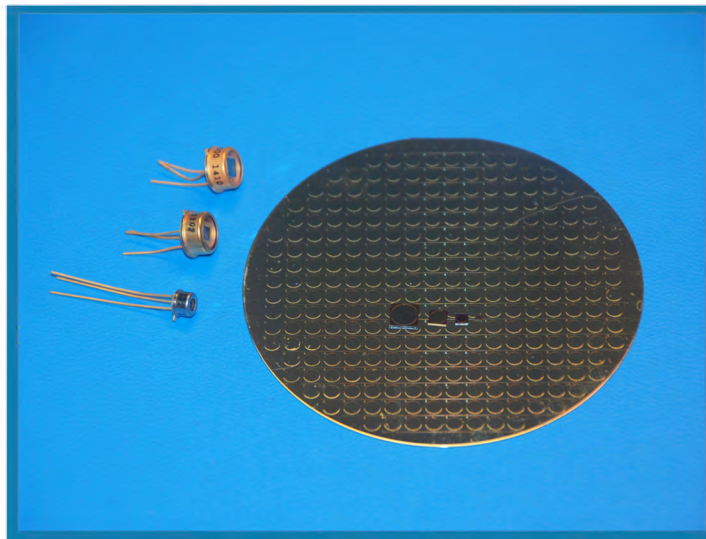
GAP1000

GAP 2000

GAP 3000

GAP 5000

Large Area InGaAs Photodiodes



- **High Responsivity**
- **High Shunt Resistance**
- **Low Capacitance: High Speed**
- **Planar Design for High Reliability**

GPD Optoelectronics Corp.

7 Manor Parkway

Salem, NH 03079 U.S.A.

Tel/Fax: (603)894-6865/6866

<http://www.gpd-ir.com>



GAP 500 GAP 1000
 GAP 2000 GAP 3000
 GAP 5000

Electrical Characteristics @ 25 °C

	GAP500	GAP1000	GAP2000	GAP3000	GAP5000
Active Diameter (mm)	0.5	1.0	2.0	3.0	5.0
Responsivity @ 850nm	0.10 (0.20)	0.10 (0.20)	0.10 (0.20)	0.10 (0.20)	0.10 (0.20)
A/W min. (typ.)1300nm	0.80 (0.90)	0.80 (0.90)	0.80 (0.90)	0.80 (0.90)	0.80 (0.90)
1550nm	0.9 (0.95)	0.9 (0.95)	0.9 (0.95)	0.9 (0.95)	0.9 (0.95)
Dark Current nA max. (typ.)	30 (6)@5V	100 (25)@5V	200 (50)@1V	500 (200)@1V	10µA(5µA)@0.3V
C _J @ 0V pF max (typ.)	40 (20)	120 (80)	500 (300)	1000 (600)	2500 (1800)
C _J @ -5V pF max (typ.)	10 (8)	50 (30)	150 (100) @-3V	300 (250) @-2V	900 (750) @ -1V
Bandwidth MHz 50 Ω -3dB	400 (5V)	100 (5V)	30 (3V)	12 (2V)	4.0 (1V)
T _r R _L =50Ω ns (typ.)	1.0 (5V)	3.0 (5V)	10 (3V)	30 (2V)	90 (1V)
R _s MΩ min (typ.)	50 (125)	20 (50)	5 (30)	2.0 (8)	1.0 (1.5)
NEP (1550 nm)pW/√Hz min.	0.02	0.03	0.06	0.10	0.14
Linear range (±0.2dB) dBm	8.0 (5V)	8.0	6.0	6.0	6.0
Case Style (standard)	TO-46 (mod.)	TO-46 (mod.)	TO-5	TO-5	TO-8

Maximum Ratings

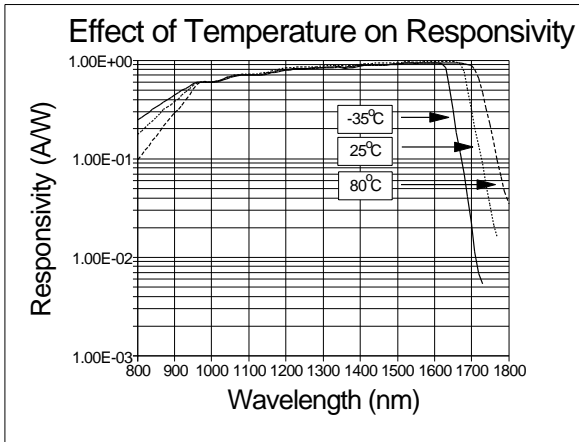
	GAP500	GAP1000	GAP2000	GAP3000	GAP5000
Storage Temperature °C	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Operating Temperature °C	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Reverse Voltage V	20	20	3	2	2
Reverse Current mA	10	10	10	10	10
Forward Current mA	10	10	10	10	10
Power Dissipation mW	100	100	50	50	50

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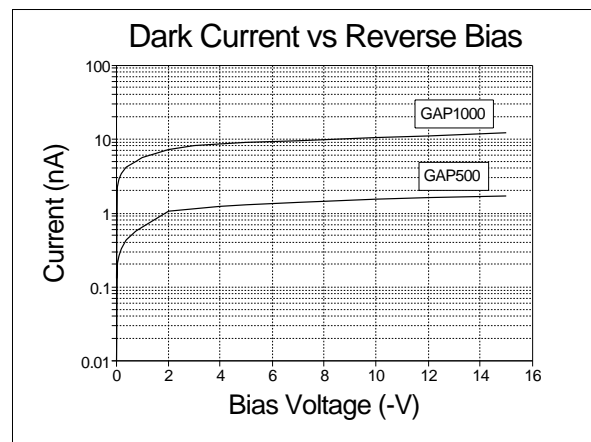
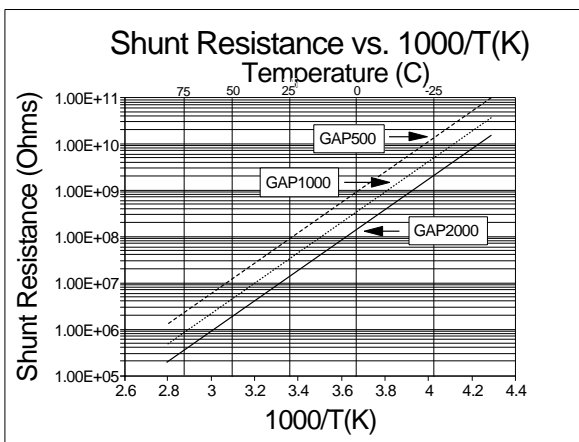
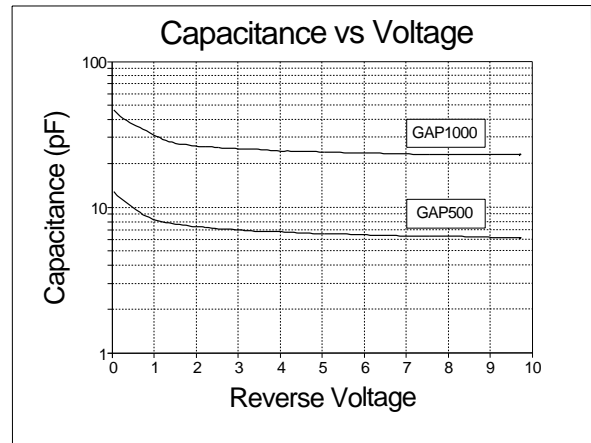
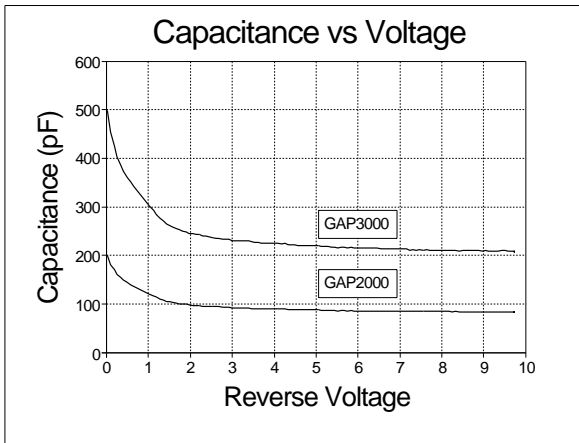
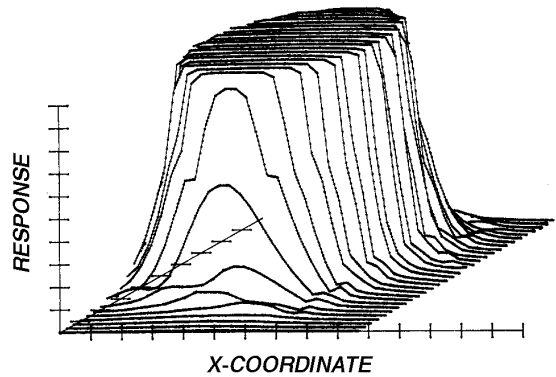
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GAP 500 GAP 1000
GAP 2000 GAP 3000
GAP 5000



Plot of Surface Response for GAP 2000 at 1300 nm



Extended short-wavelength response also available.

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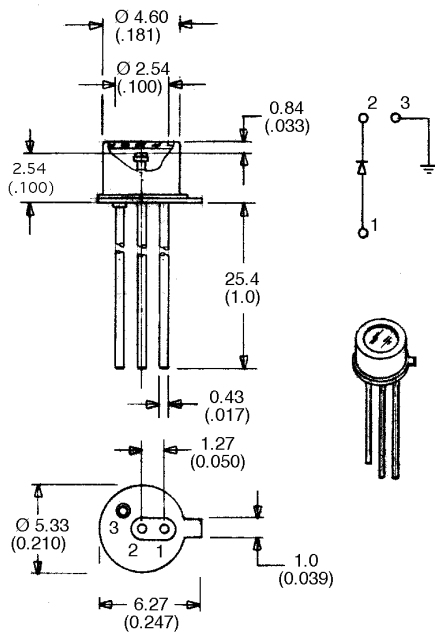


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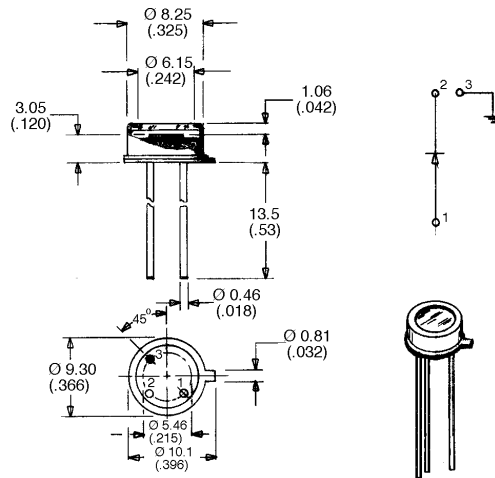
Package Outlines

Dimensions in mm (in.) Many other packages (including lensed packages) available.

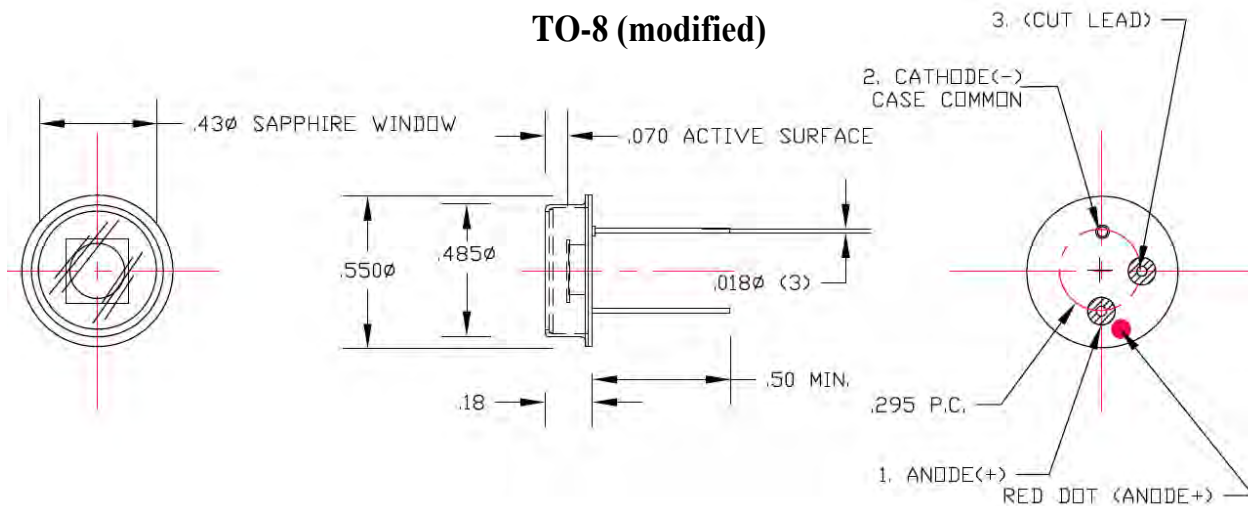
TO-46 (modified)



TO-5



TO-8 (modified)



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