

**GAP 500**

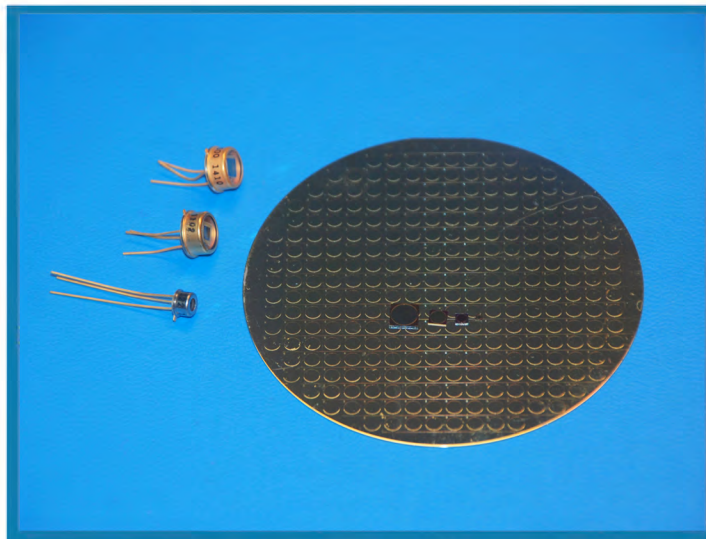
**GAP1000**

**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 <sub>J</sub> @ 0V pF max (typ.)	40 (20)	120 (80)	500 (300)	1000 (600)	2500 (1800)
C <sub>J</sub> @ -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 <sub>r</sub> R <sub>L</sub> =50Ω ns (typ.)	1.0 (5V)	3.0 (5V)	10 (3V)	30 (2V)	90 (1V)
R <sub>s</sub> 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

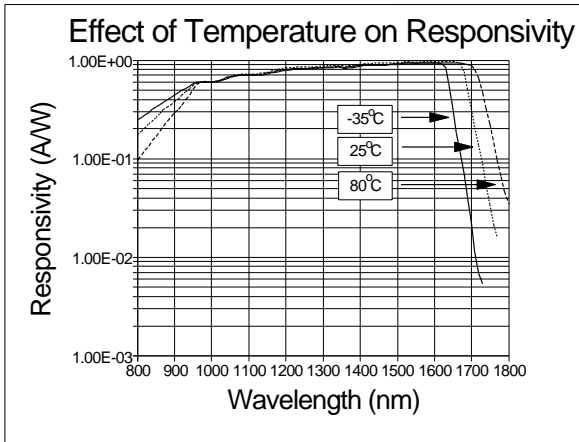
	GAP500	GAP1000	GAP2000	GAP3000	GAP5000
Storage Temperature °C	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Operating Temperature °C	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Reverse Voltage V	20	20	3	2	2
Reverse Current mA	10	10	10	10	10
Forward Current mA	10	10	10	10	10
Power Dissipation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

## GPD Optoelectronics Corp.

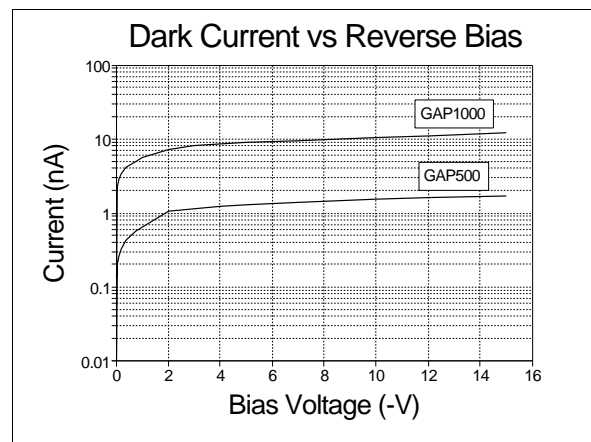
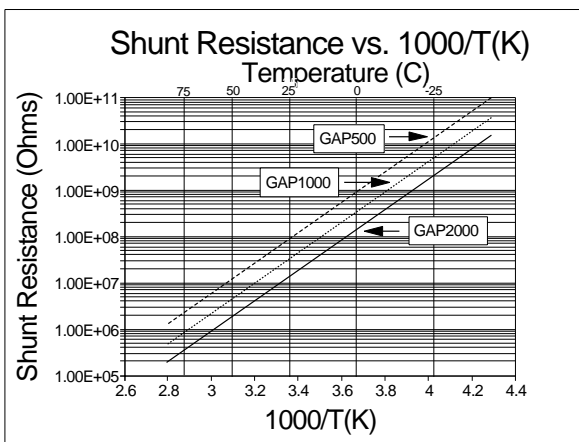
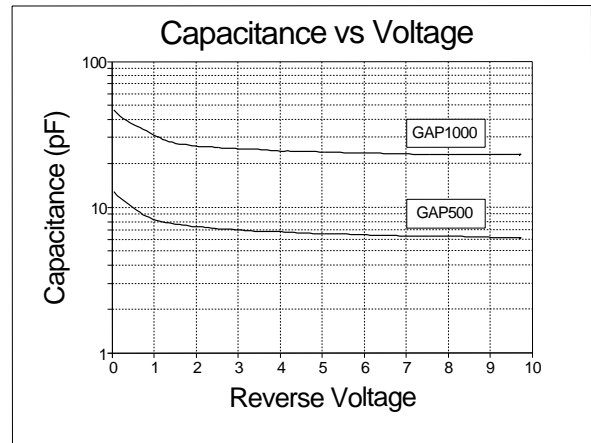
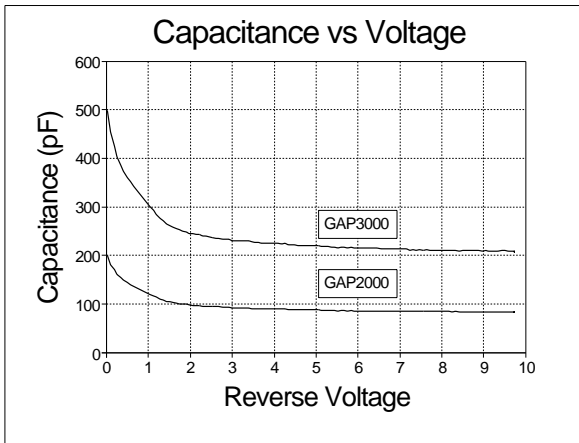
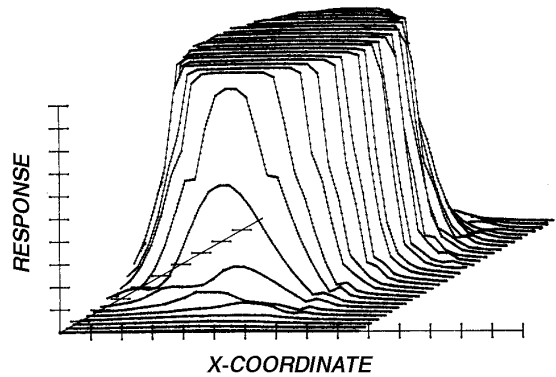
7 Manor Parkway  
 Salem, NH 03079 U.S.A.  
 Tel/Fax: (603)894-6865/6866  
<http://www.gpd-ir.com>



GAP 500    GAP 1000  
GAP 2000    GAP 3000  
GAP 5000



### Plot of Surface Response for GAP 2000 at 1300 nm



Extended short-wavelength response also available.

## GPD Optoelectronics Corp.

7 Manor Parkway

Salem, NH 03079 U.S.A.

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

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

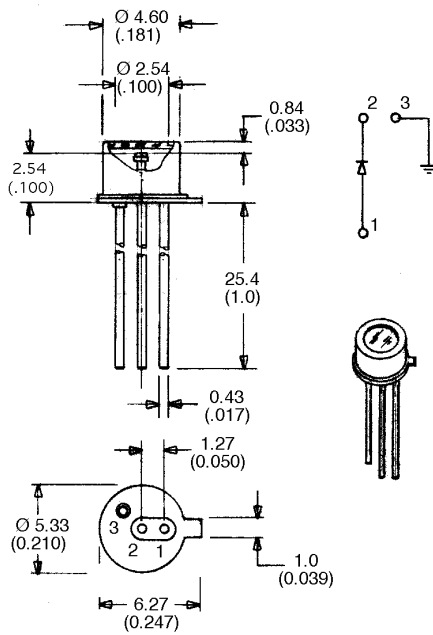


GAP 500    GAP 1000  
 GAP 2000    GAP 3000  
 GAP 5000

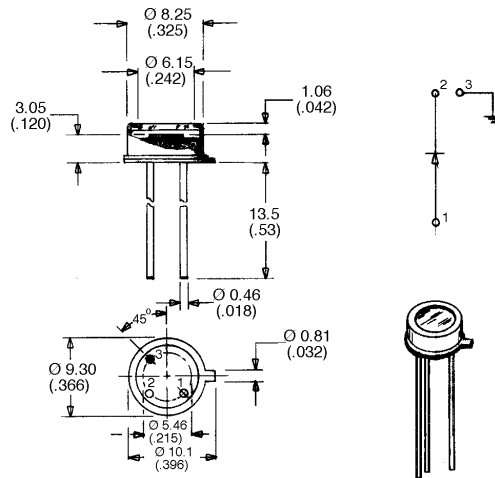
**Package Outlines**

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

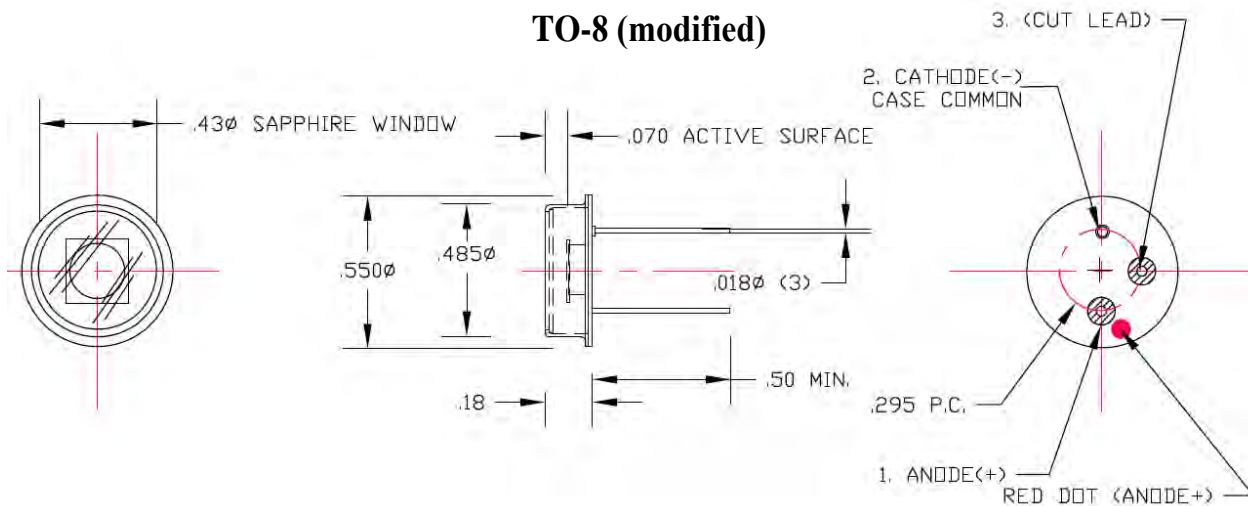
**TO-46 (modified)**



**TO-5**



**TO-8 (modified)**



**GPD Optoelectronics Corp.**

7 Manor Parkway  
 Salem, NH 03079 U.S.A.  
 Tel/Fax: (603)894-6865/6866  
<http://www.gpd-ir.com>