

OEC



Opto-Electronic
Components



InGaAs Large Area Photodiodes

800nm – 1700nm

Electrical Characteristics

@25°C +, - 2°C

Basic Type

		GAP 500	GAP 1000	GAP 2000	GAP 3000	GAP 5000
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 (0.88)	0.80 (0.90)	0.80 (0.90)
	1550nm	0.95 (0.95)	0.90 (0.95)	0.90 (0.95)	0.90 (0.95)	0.90 (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 (1V)
T _r R _L = 50 Ω	ns typ	1 (5V)	3 (5V)	10 (3V)	30 (2V)	90 (1V)
R _s	MΩ min / typ	50 (125)	20 (50)	5 (30)	2 (8)	1 (1,5)
NEP (1550nm)	pW/√Hz min	0.02	0.03	0.06	0.1	0.14
Linear Range ± 0.2dB	dBm	8	8	6	6	6
Case Style	standard	TO-46 (mod.)	TO-46 (mod.)	TO-5	TO-5	TO-8

Maximum Ratings

	GAP 500	GAP 1000	GAP 2000	GAP 3000	GAP 5000
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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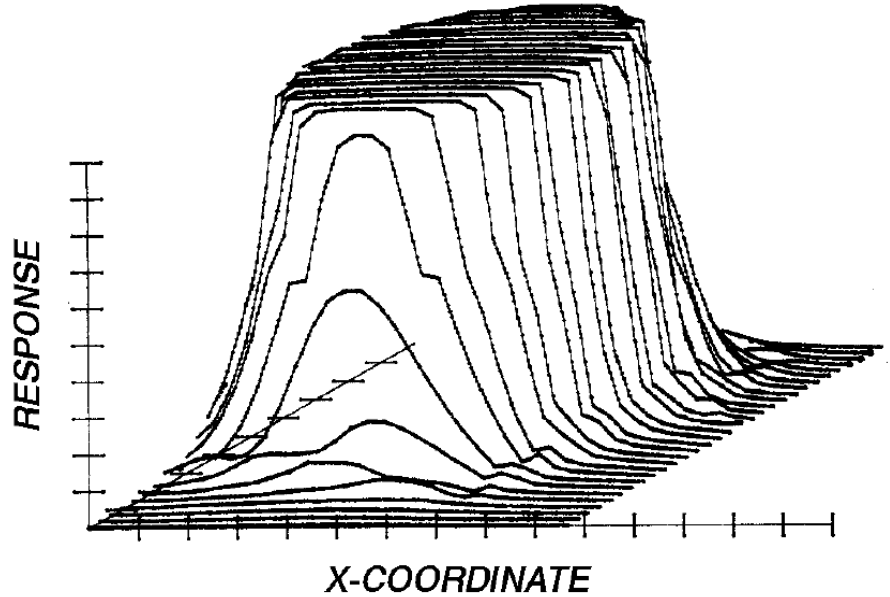
Stand 01.10.205

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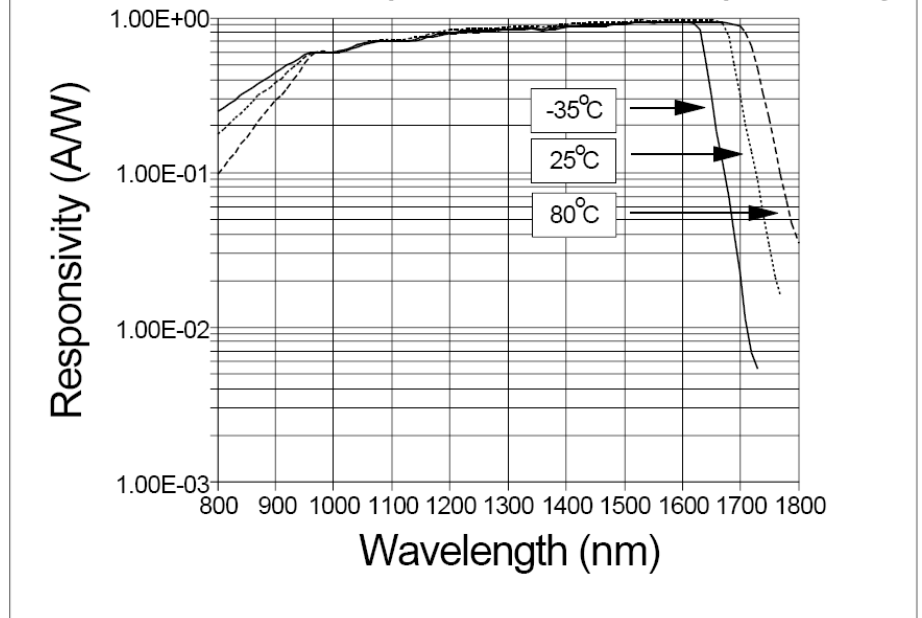


Characteristics

Plot of Surface Response for GAP 2000 at 1300 nm



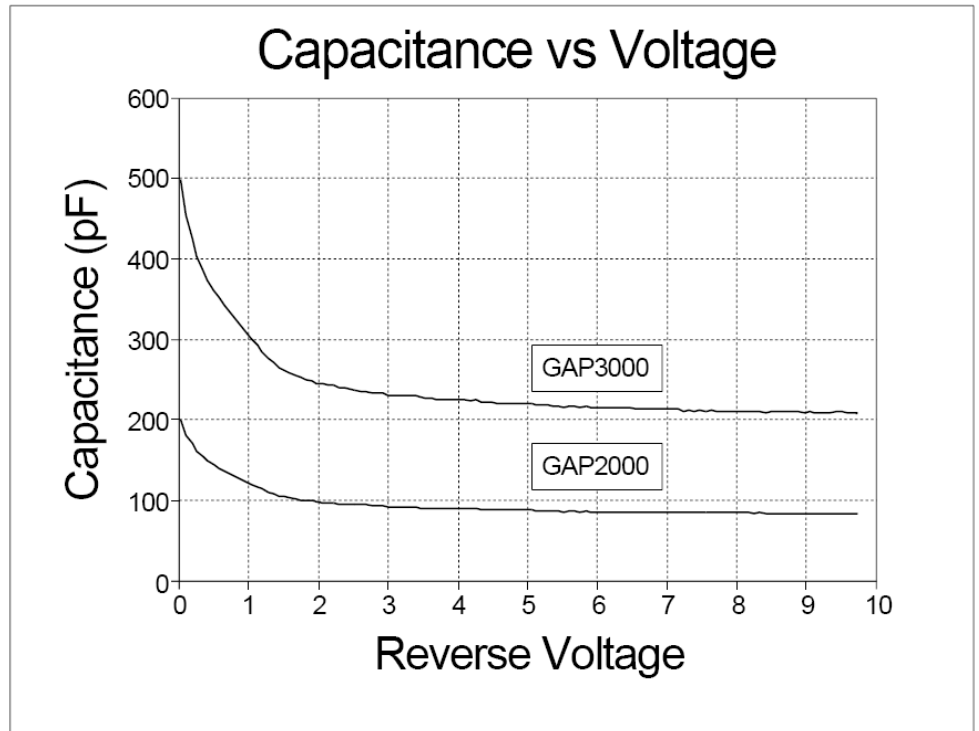
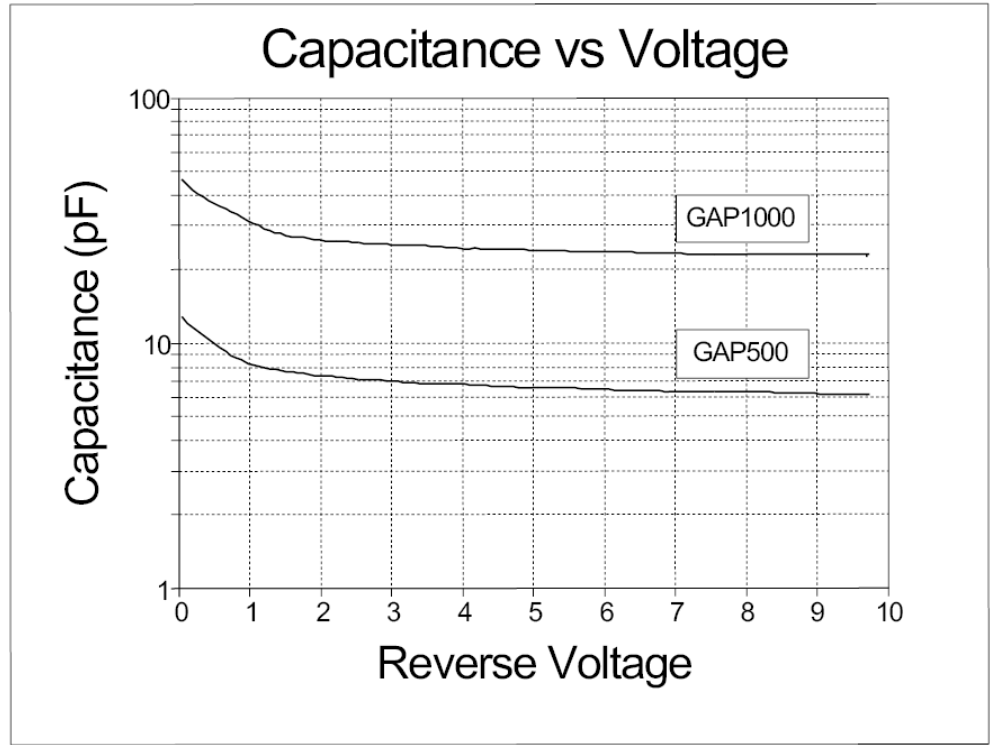
Effect of Temperature on Responsivity

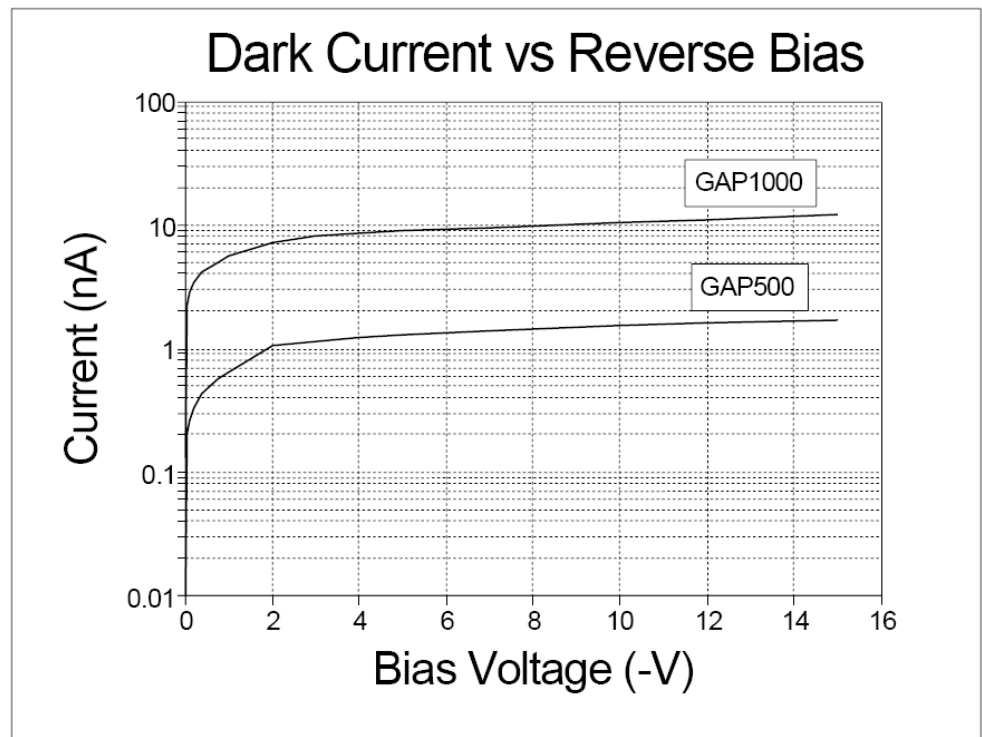
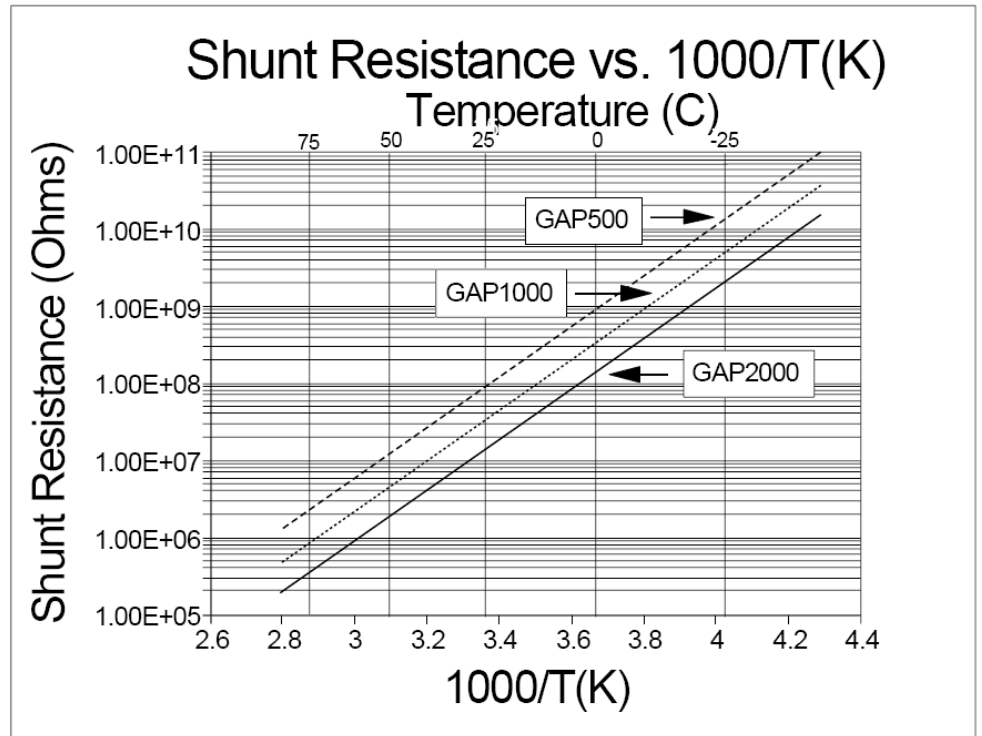


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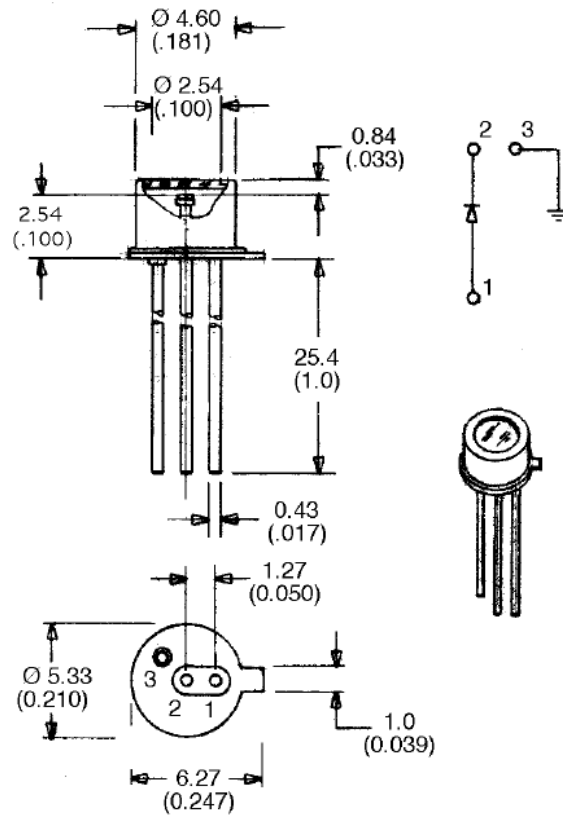


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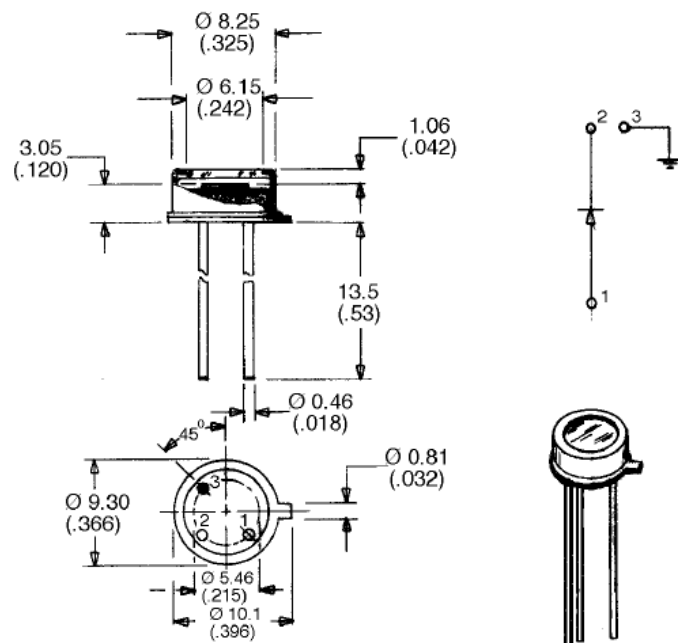
Package Outlines

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

TO-46 (modified)

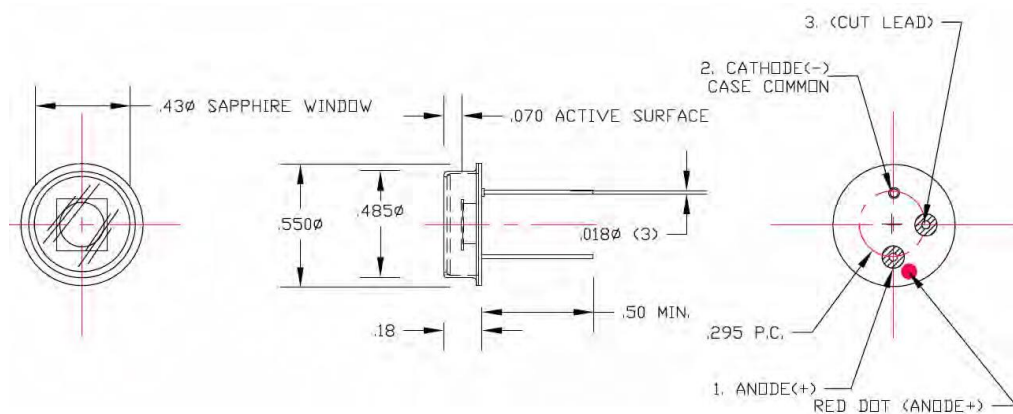


TO-5





T08



Package Drawing

GAP500L

Large Lens

