

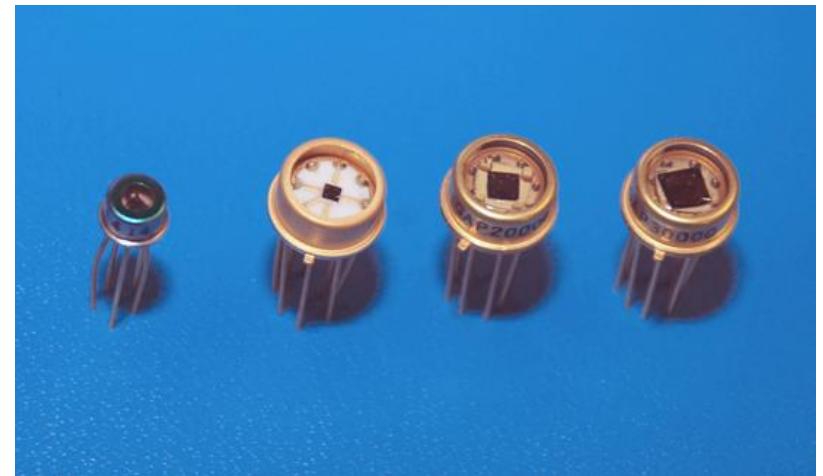
InGaAs Quadrant Photodiodes

Features:

- 800nm to 1700nm Spectral Response
- Active Diameter (0.5mm, 1.0mm, 1.5mm, 2.0mm and 3.0mm)
- High Sensitivity
- Low Crosstalk
- High Shunt Resistance
- Low Dark Current
- Low Capacitance for High Segment Bandwidth
- Standard Package (TO-18 and TO-5)

Applications:

- Beam Alignment
- Laser Guidance
- Optical Tweezers
- Beam Profiling



InGaAs Quadrant Photodiodes

Electro-Optical Characteristics 23°C +,-2°C

Performance Specification	GAP500Q	GAP1000Q	GAP1500Q	GAP2000Q	GAP3000Q	Units
Active Surface Diameter	0.5	1	1.5	2	3	mm
Sector Area	0.0423	0.184	0.423	0.76	1.73	mm ²
Element Gap	0.02	0.02	0.02	0.03	0.03	mm
Crosstalk (typ max)	2 5	2 5	2 5	2 5	2 5	%
Wavelength Range	800 to 1700	800 to 1700	800 to 1700	800 to 1700	800 to 1700	nm
Peak Wavelength	1600	1600	1600	1600	1600	nm
Cutoff Wavelength (50%)	1650	1650	1650	1650	1650	nm
Responsivity @ λ_{PEAK} (min typ)	0.9 0.95	0.9 0.95	0.9 0.95	0.9 0.95	0.9 0.95	A/W
Dark Current @ 5 V (typ max)	0.1 2	0.6 6	1 12	2 22 @ 2V	5 50 @ 2V	nA
Shunt Resistance (min typ)	390 781	88 176	40 80	23 46	10 20	MΩ
NEP @ λ_{PEAK}	7	14	21	28	42	fW/Hz ^{1/2}
Junction Capacitance @ 0 V	4 7	19 31	41 68	72 121	165 275	pF
Junction Capacitance @ 5V	4 6	8 10	17 22	31 39 @ 2V	70 90 @ 2 V	pF
Rise/Fall Time @ 5V (typ)	0.4	1	2	4	8	ns
Package	TO46	TO46	TO46	TO5	TO5	

Maximum Ratings

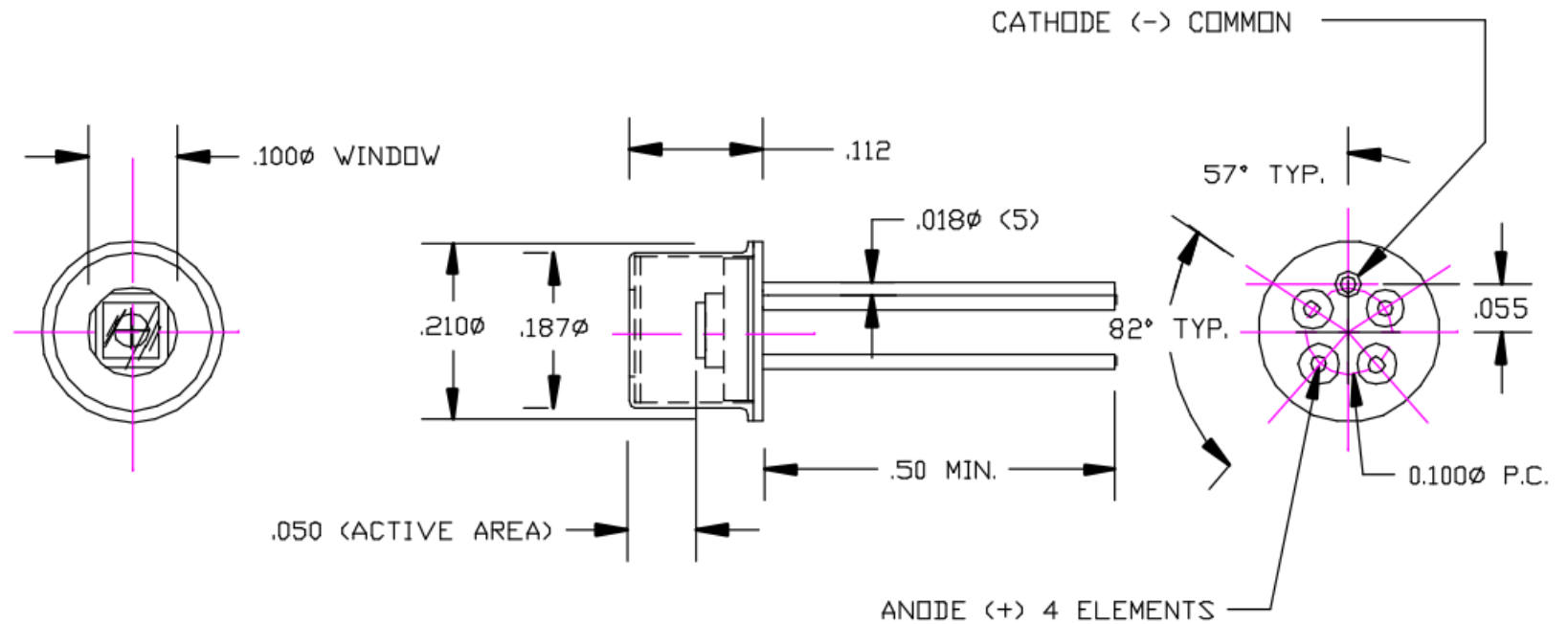
Performance Specification	GAP500Q	GAP1000Q	GAP1500Q	GAP2000Q	GAP3000Q	Units
Storage Temperature	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	°C
Operating Temperature	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	°C
Reverse Current	1	1	1	1	1	mA
Forward Current	10	10	10	10	10	mA

InGaAs Quadrant Photodiodes



Packages:

TO46



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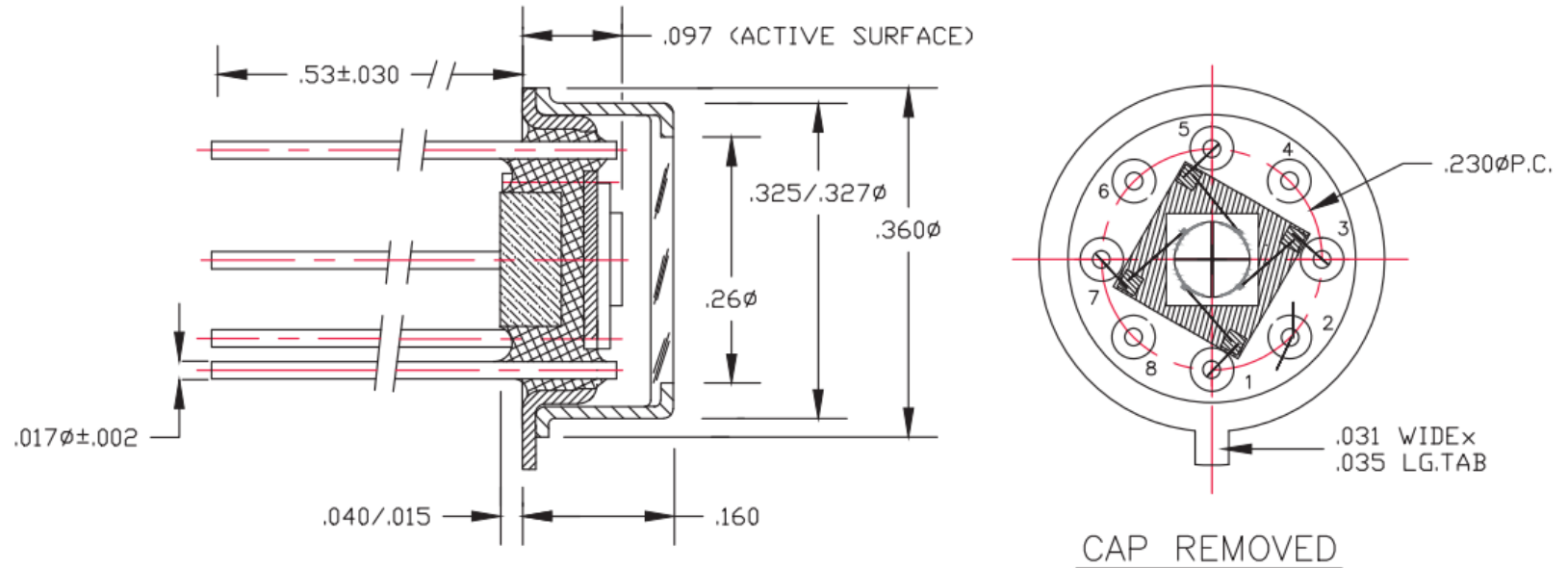


Opto-Electronic
Components



Packages:

TO5



1. ANODE (+) A
2. CASE GND
3. ANODE (+) B
4. N/A (LEAD CUT)
5. ANODE (+) C
6. N/A (LEAD CUT)
7. ANODE (+) D
8. CATHODE (-)

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