

GAP500Q
 GAP1000Q
 GAP1500Q
 GAP2000Q
 GAP3000Q

InGaAs Quadrant Photodiodes

GAP Quadrant Photodiodes

Optical & Electrical 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

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