



Low Polarization Dependent Loss (PDL)

GAP300PDL
GAP500PDL
GAP1000PDL
GAP1500PDL
GAP2000PDL
GAP3000PDL
GAP5000PDL

Electrical Characteristics @ 23 °C ± 2 °C

	GAP300PDL	GAP500/PDL	GAP1000PDL	GAP1500PDL	GAP2000PDL	GAP3000PDL	GAP5000PDL	Units
Active Diameter	0.3	0.5	1.0	1.5	2.0	3.0	5	mm
Peak Wavelength (typ)	1.6 ± 0.1	1.6 ± 0.1	1.6 ± 0.1	1.6 ± 0.1	1.6 ± 0.1	1.6 ± 0.1	1.6 ± 0.1	µm
Cutoff Wavelength (50%)	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	µm
Responsivity@ λ _p (min/typ)	0.9/1.0	0.9/1.0	0.9/1.0	0.9/1.0	0.9/1.0	0.9/1.0	0.9/1.0	A/W
Shunt Resistance (typ)	250	125	50	40	30	8	1.5	MΩ
Dark Current @ 5 V (typ)	1	6	25	50	50 (1V)	200 (1V)	200 (0.1V)	nA
Capacitance @ 5 V (typ)	4	8	30	75	300 (0V)	600 (0V)	1800 (0V)	pF
Bandwidth w/ 50 Ω @ 5 V	800	400	106	44	10 (0V)	5 (0V)	2 (0V)	MHz
Rise time w/ 50 Ω @ 5 V	0.4	0.9	3.3	8	33 (0V)	66 (0V)	200 (0V)	ns
PDL @ 0 V (typ/max)	5/10	5/10	5/10	5/10	5/10	5/10	5/10	mdB
NEP @ λ _{PEAK} (typ) @ 0 V	8x10 ⁻¹⁵	11x10 ⁻¹⁵	18x10 ⁻¹⁵	20x10 ⁻¹⁵	23x10 ⁻¹⁵	45x10 ⁻¹⁵	104x10 ⁻¹⁵	W/Hz ^{1/2}
Linearity (±0.2 dB @ 0 V)	6	6	6	6	6	6	6	dBm
Case Style	TO-46	TO-46	TO-46	TO-46	TO-5	TO-5	TO-8	
* Higher Linearity Version Available up to 12 dBm at 0 V								

Maximum Ratings

	GAP300PDL	GAP500PDL	GAP1000PDL	GAP2000PDL	GAP3000PDL	GAP5000PDL	Units
Storage Temperature	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	°C
Operating Temperature	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	°C
Reverse Voltage	25	2	2	2	1	1	V
Reverse Current	10	10	10	10	10	10	mA
Forward Current	10	10	10	10	10	10	mA
Power Dissipation	50	50	50	50	50	50	mW

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