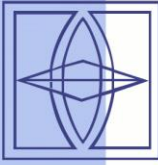


OEC



Opto-Electronic
Components



Low Capacitance, Large Area InGaAs Photodiodes

General

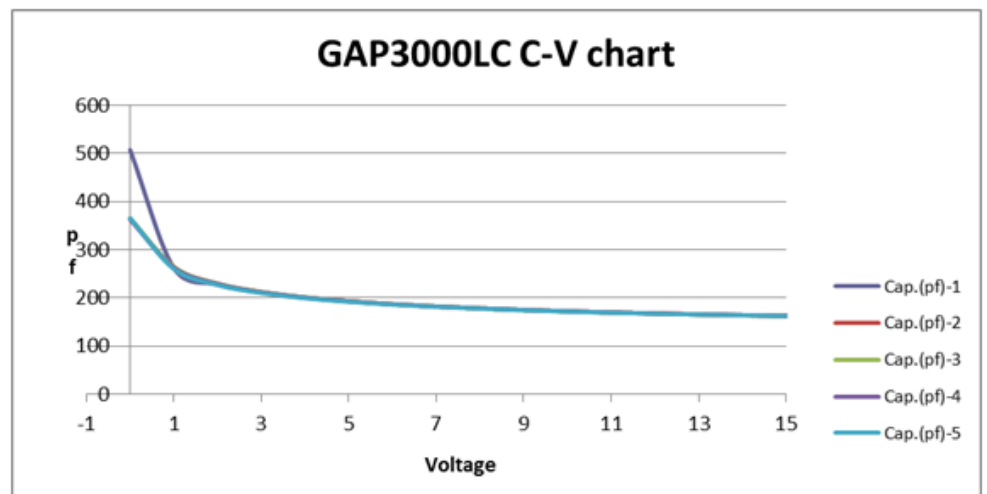
It seems as though the market cares about being able to use larger area devices/photodiodes with lower capacitance.

As part of a continued effort to improve our detector performance we have recently completed development of a capacitance reducing effort.

We are planning to run additional device geometries using this method thus we started with a 3mm device.

We presently have GAP3000LC devices with <200pF at -5V – chart below. The 0V capacitance is nominally 350-500pF

As far as we can tell, there are no negative tradeoffs – Rshunt, Id, Linearity, and Response are all good, if not better than typical – The responsivity is improved as a result of the improvement.



Sample data from engineering lot: GAP3000LC

Ser.#	Id @ 1 v < 500 na	Rsh @ > 2 (M-ohms)	Cap @ @2v < 430 pf	R1300 nm > 0.8	R850 nm > 0.1	R1550 nm > 0.95	Vf @ 10 ma < 0.72 v	Cap(pf)@ 0V
1	2.00	15.2	228.6	0.953	0.312	1.142	0.460	496.200
2	2.50	9.7	230.2	0.947	0.303	1.146	0.459	505.100
3	2.50	13.4	230.5	0.968	0.308	1.162	0.457	510.800
4	2.30	10.2	229.5	0.963	0.312	1.156	0.459	501.500
5	2.10	14.6	227.4	0.966	0.312	1.154	0.460	496.200

Please, let me know if you have interest in evaluating samples of this new “LC” detector.

OEC YOUR PARTNER